DOCUMENT RESUME

ED 246 007 SP 024 398

TITLE The Report of the Teacher Competency Examination Panel [and] Approval of the Teacher Entrance Examination Policy Recommendations.
INSTITUTION Connecticut State Board of Education, Hartford.
PUB DATE [83]
NOTE 86p.; Best copy available.
PUB TYPE Reports - Descriptive (141) -- Legal/Legislative/Regulatory Materials (090)

EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS *Admission Criteria; *Education Majors; Elementary School Teachers; Graduation Requirements; Higher Education; Mathematics Achievement; Preservice Teacher Education; Quantitative Tests; Reading Tests; Schools of Education; Scores; Secondary School Teachers; *Standardized Tests; State Boards of Education; *State Standards; Test Construction; Writing Skills
IDENTIFIERS *Connecticut

ABSTRACT

On April 7, 1982, the Connecticut State Board of Education passed a resolution commending the work of the Professional Development Council and approving the recommendations contained in the report, "Recommendations for Ensuring Professional Competence." Pursuant to three recommendations from this report, an advisory committee was appointed to examine testing issues and make recommendations pertaining to competency examinations to be given prospective teachers upon entrance to and exit from teacher preparation programs. This report: (1) summarizes the progress made in implementing the entrance examination; (2) makes recommendations to the State Board of Education concerning the entrance examination; and (3) summarizes and presents a Connecticut State Department of Education staff and panel timetable of activities to investigate and implement certain recommendations. Appended to the report are 10 attachments including such items as: the survey on Connecticut Competency Examinations for Prospective Teachers; survey responses; and a position paper on proficiency testing. Included separately is the report presented to the State Board of Education concerning the advisory committees' policy recommendations. (JMK)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
X Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

Connecticut State Board of Education
Hartford

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Douglas A. Rindone
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

BEST COPY AVAILABLE

ED246007

TO: State Board of Education

FROM: Gerald N. Tirozzi, Commissioner

SUBJECT: The Report of the Teacher Competency Examination Panel

Pursuant to Recommendations 5, 6 and 9 for Ensuring Professional Competence (see Attachment A) Commissioner Mark Shedd appointed an advisory committee, the Teacher Examination Development Panel, to examine testing issues and make recommendations pertaining to competency exams to be given to prospective teachers upon entrance to and exit from teacher preparation programs. The membership of the Panel and a more detailed charge can be found in Attachment B. As the report documents, the Panel has made excellent progress in implementing Recommendation 5. In the year ahead, the Panel will give primary attention to acting on Recommendations 6 and 9

This report is presented to the State Board of Education at its February 1984 meeting for review and discussion. At its March 1984 meeting the Board will be asked to act on the policy recommendations which appear herein as III, page 9. The policy recommendations concern an entrance examination for prospective teachers which the Board has approved instituting as part of the revised standards and procedures for teacher education. An amount of $115,000 is in the 1984-85 budget request to fund the development, pilot testing, and initial administration of the Connecticut Competency Examination for Prospective Teachers.

The purpose of this report is (1) to summarize the progress that has been made in implementing the entrance examination (Recommendation 5); (2) to make recommendations to the State Board of Education concerning the entrance examination; and (3) to summarize and present a Connecticut State Department of Education staff and Panel timetable of activities to investigate and implement Recommendations 6 and 9 (see Attachment C).

I. BACKGROUND

The Teacher Examination Development Panel (TEDP) convened its first meeting on February 15, 1983. It was agreed at that time that the initial work of the panel would focus on the entrance examination for prospective teachers. During the next few meetings (3/15/83 and 4/19/83) discussion centered around the concept of developing a test which will provide useful information for counseling and remediation. This focus is consistent with Recommendation 5 in Ensuring Professional Competence which states, in part, that "when appropriate, remediation and re-examination for those receiving unsatisfactory scores would be undertaken." Thus, two purposes for test use are to (1) discriminate between proficient/non-proficient teacher candidates and (2) to provide information about a candidate's strengths and weaknesses.

SP 024 398

In addition, there was a great deal of concern about limiting the testing of prospective teacher competencies to the areas of reading, writing and mathematics. It was the Panel's position that some critical competencies may be overlooked in this process such as personality characteristics, concern for the humanities, speaking and listening skills. The Panel decided that these competencies, and others, certainly were important and that institutions of higher education should not lose sight of these skills when selecting and evaluating prospective teachers in their program of study. Nevertheless, for the purposes of the entrance examination, it was agreed that the focus should be on reading, writing and mathematics.

As a result, four guidelines for developing a competency examination in reading, writing and mathematics were approved by the TEDP. These guidelines are listed below:

A. Guidelines for Developing a Competency Examination in Reading, Writing and Mathematics

1. Test development will focus on the identification of important skills in the content areas of reading, writing and mathematics. Consideration may also be given to competencies beyond the area(s) of reading, writing and mathematics.

2. The competency examination will yield results useful in the development of remedial programs for prospective candidates of the teaching profession.

3. The competency examination will be designed to provide information about a person's strengths and weaknesses, as appropriate, at the following levels: the subtest level (reading, writing and mathematics); at the domain level (e.g., for mathematics: computation, concepts, problem solving) and at the item level.

4. Test development will include identifying and implementing appropriate methods for setting standards of proficiency in the designated content areas.

Discussion of the Panel not only focused on the nature of the examination but also on the use of the test results. Again, in keeping with the intent of Recommendation 5, the Panel approved the following guidelines for use of the competency examination in reading, writing and mathematics:

B. Guidelines for Use of the Competency Examination in Reading, Writing and Mathematics

1. Students must take the examination prior to entering a teacher education program and may take it as early as the freshman year.

2. Students failing the examination on the initial administration may retake the failed subtests as often as they are administered until the entire examination is passed. Students will be permitted to retake subtests for no longer than 2 years from the date of initial failure.

3. Institutions may allow students who do not pass the examinations to take teacher preparation courses simultaneously with remedial courses. However, in no case will students be formally admitted to the teacher preparation program nor be permitted to engage in student teaching until they pass the examination.

4. Students will receive advice and counseling concerning their examination results. When appropriate, remediation may be made available by institutions of higher education.

5. The nature of the remediation for any one student will be based, in part, upon the information from the student's examination results.

6. In appropriate circumstances, alternatives to the Connecticut competency examination may be accepted. For example:

    a. evidence of a combined score of 1000 on the Scholastic Aptitude Test (SAT) with no less than 400 on the verbal and mathematics subtests; or

    b. evidence of proficiency on a comparable competency examination administered by another state.

At several points during the process of developing these guidelines, the Teacher Examination Development Panel exchanged ideas with both the Teacher Certification Advisory Council and the Procedures and Standards Committee. The dialogue was facilitated by several individuals holding joint membership and the exchanges strengthened the resulting products. Once discussions and recommendations regarding the nature and use of the competency exam were finalized, the attention of the Panel focused on discussing validity issues, identifying the competencies to be included on an examination for prospective teachers, and the scope of future assessment activities.

The discussion of validity focused primarily on establishing validity procedures which were consistent with the nature and purpose of the proposed entrance examination (See Attachment D for a more technical discussion). The identification of competencies in reading, writing and mathematics to be included on an examination for prospective teachers was accomplished using two methods: (1) expert judgement, and (2) a statewide survey. These approaches will be discussed in greater detail in the following section. Finally, the scope of future assessment activities were summarized for the Commissioner's office and the Panel in a policy paper entitled "Ensuring Teacher Mastery Including Proficiency Testing for Teacher Certification" (See Attachment E).

II. IDENTIFYING COMPETENCIES FOR THE ENTRANCE EXAMINATION

A. Expert Judgement

The mathematics, reading and writing competencies were developed by subject matter experts (See Attachment F). A committee of the Association of Teachers of Mathematics in Connecticut (ATOMIC) gave careful thought to the mathematics competencies which all prospective teachers should possess. Likewise, a committee of reading and writing experts identified the competencies which all prospective teachers should possess in these areas. The committees which reviewed the competency list(s) were charged with evaluating each list on the basis of the scope of the competencies as well as the relative importance of each competency.

After deliberation, a finalized list of competencies was identified in each content area and incorporated into the Connecticut Competency Examination survey. In addition, prior to statewide dissemination of the survey the Teacher Examination Development Panel was given an opportunity to review the competencies. Their comments and corrections were collected and the appropriate revisions to the competency lists were made.

B. Survey Development

During the month of September, 1983 the Bureau of Research, Planning and Evaluation conducted a survey by mail within Connecticut. The purpose was to sample opinion about what competencies should be included on a competency examination for prospective teachers. Respondents were informed in a cover letter that the examination will assess competence in reading, writing, and mathematics and will be administered to college students prior to admission into a teacher training program.

The survey identified a set of competencies in mathematics, writing and reading. Respondents were asked to rate the relative importance of the competencies to be included on the examination. Ratings were made using the following scale:

4 = Very Important
3 = Important
2 = Slightly Important
1 = Not Important
0 = Undecided

Twenty-six mathematics competencies and ten writing competencies were rated. The reading section of the survey presented two reading passages of different difficulty levels. Respondents were asked whether they thought the level of difficulty of each example was appropriate for the examination. A copy of the survey instrument can be found in Attachment G.

C. Response to the Survey

The overall survey response rate was 48% and should be considered good since no follow-up procedures were used.[1] Perhaps interest in the teacher competency issue(s) by key groups is reflected in their return rate. Inspection of Table 1 suggests that in almost all cases the groups sampled had a reasonably representative response rate (50% or greater).

Overall, 56% of all respondents were teachers (this percentage includes support staff), 15% of the respondents were administrators, 9.6% of the respondents were employed in higher education, 3% of respondents were from business and industry and the remaining respondents (16%) were from a variety of areas (i.e., P.T.A., board chairpersons etc.). For a more detailed presentation of technical information regarding the survey and respondent populations see Attachment H.

[1] "Responses to mail questionnaires are generally poor. Since higher percentages are rare at best, the researchers must content themselves with returns as low as 50 or 60 percent". Kerlinger, Fred. Foundations of Behavorial Research, 1964.

Table 1

RESPONSE RATES FOR EDUCATIONAL GROUPS

Groups	Total Surveyed	Number and Percent of Group Responding		Percent of Total Respondents
		N	%	
Kindergarten and Elementary Teachers	1,100	261	24%	18%
Junior and Senior High School Teachers	540	396	73%	28%
Professors of Education	142	122	86%	8%
Superintendents of Schools	165	87	53%	6%
Central Office Admin.	37	29	78%	2%
Principals/Vice Principals	178	104	58%	7%
Support Staff	210	145	69%	10%
Directors, Prof. Orgin.	70	8	11%	.6%
Deans of Education	22	15	68%	1%
Fres., Community College	12	8	67%	.6%
Subtotal	2,476	1,175		81.2%

RESPONSE RATES FOR SELECTED GROUPS*

Groups	Total Surveyed	Number and Percent of Group Responding		Percent of Total Respondents
		N	%	
Business/Industry	50	48	96%	3%
Chairs, local boards*	165	73	NA	NA
State Board of Education	9	4	44%	2%
Presidents, P.T.A.'s*	219	292	NA	NA
General Assembly	28	18	64%	1%
Other	53	40	NA	3%
SubTotal	524			
TOTAL	3,000			

*Counts in these categories may be duplicate counts. Therefore the percent of people responding in these categories would be inflated.

D. Survey Results

A number of tables displaying the findings will be presented. First, the rating made by respondents were tabulated so as to present the percentage of people responding across each rating category and within each competency category (see Attachment I). Since the reading format on the survey differed from mathematics and writing, the reading section has not been included in these specific table presentations. Second, the ratings made by respondents were ranked (high to low) on the basis of mean ratings for each item (Tables 2, 3, 4). Finally, in all tables the undecided category was omitted from the analysis due to an extremely small number of responses in this rating category.

Following are brief interpretations of the results for each of the competency areas. The data discussed are displayed in Tables 2, 3 and 4 found on the following pages.

Interpretation of Mathematics Results. As shown in Table 2, overall, the mean ratings across all items were relatively high ranging from 3.8 (Item 1) to 2.7 (Item 22).

This generally favorable response pattern indicates that most respondents perceived that the scope of the competencies listed for mathematics were important and should be included on a mathematics examination for prospective teachers.

Other highlight(s):

- Two items had mean ratings which fell slightly below the importance category rating of 3.0, Item 9 (2.9) and Item 22 (2.7).

Interpretation of Writing Results. As shown in Table 3, in general, respondents gave high ratings to all ten of the writing competencies listed. This indicates that they expect prospective teachers to demonstrate all of these traits in any written materials which they produce.

Other highlight(s):

- Relatively lower importance was given to penmanship.
- The lowest rating was given to knowledge of conventional formats for different types of writing.

Interpretation of Reading Results. As shown in Table 4, the survey findings clearly indicate that the reading difficulty level of passages 1 and 2 are considered appropriate for testing prospective teachers. The readability value of passage 1 is 50 which is typical of the difficulty of high school textbooks. The readability value of passage 2 is 69 which is typical of the difficulty of freshman and sophomore college textbooks.

Table 2

RATINGS MADE ON MATHEMATICS COMPETENCIES

Survey Number	Competency	Percentage Response Across Rating Scale* (4)	(3)	(2)	(1)	Mean Rating
(1)	Adds/subtracts whole numbers and decimals	88%	8%	2%	1%	3.8
(2)	Multiplies and divides whole numbers and decimals	86%	10%	2%	1%	3.8
(13)	Solves problems with whole numbers and decimals	80%	15%	3%	1%	3.7
(4)	Finds percents of whole numbers	76%	18%	4%	1%	3.7
(3)	Performs all functions with fractions and mixed numbers	77%	17%	4%	1%	3.7
(15)	Solves problems involving percents	72%	21%	4%	1%	3.7
(19)	Computes averages	71%	22%	5%	1%	3.6
(21)	Reads/interpretes tables and charts	67%	24%	6%	1%	3.6
(5)	Understands/converts among decimals, fractions and percents	67%	24%	7%	2%	3.6
(14)	Solves problems involving fractions	66%	24%	7%	2%	3.5
(6)	Understands place value, rounding and scientific notation	65%	23%	8%	2%	3.5
(12)	Estimates outcome of computation	64%	26%	8%	2%	3.5
(8)	Understands/converts customary measurement	64%	24%	8%	2%	3.5
(18)	Solves problems involving measurement	64%	26%	7%	2%	3.5
(24)	Approximates a reasonable answer	62%	35%	16%	4%	3.5
(25)	Recognizes missing information	62%	27%	9%	1%	3.5
(7)	Understands the magnitude of numbers	58%	27%	11%	3%	3.4
(17)	Solves problems involving ratios	56%	29%	11%	2%	3.4
(16)	Solves problems involving percents	56%	26%	13%	4%	3.3
(26)	Recognizes various problem solving approaches	51%	30%	14%	3%	3.3
(10)	Determines perimeter, area and volume	46%	29%	18%	6%	3.2
(23)	Solves problems using deduction	43%	35%	16%	4%	3.2
(20)	Uses and evaluates formulas	42%	30%	19%	8%	3.1
(11)	Understands and uses geometry	39%	34%	20%	5%	3.1
(9)	Understands/converts metrics	30%	35%	25%	8%	2.9
(22)	Uses simple probability	29%	29%	27%	12%	2.7

* Very Important (4)-Important (3)-Slightly Important (2)-Not Important (1)

Table 3

RATINGS MADE ON WRITING COMPETENCIES

Survey Number	Competency	Percentage Response Across Rating Scale* (4)	(3)	(2)	(1)	Mean Rating
(1)	Presents ideas in organized fashion	90%	9%	1%	1%	3.9
(5)	Employs correct grammar and usage	87%	11%	1%	1%	3.9
(6)	Uses correct mechanics	85%	12%	1%	1%	3.8
(3)	Includes sufficient detail	76%	21%	2%	1%	3.7
(7)	Punctuates correctly	77%	18%	3%	1%	3.7
(9)	Addresses all parts of assignment	75%	22%	2%	1%	3.7
(2)	Chooses effective words	72%	24%	2%	1%	3.7
(10)	Maintains focus	69%	27%	3%	1%	3.7
(8)	Produces legible handwriting	64%	27%	7%	1%	3.5
(4)	Uses established format for type of writing	61%	28%	9%	1%	3.4

* Very Important (4)-Important (3)-Slightly Important (2)-Not Important (1)

Table 4

RATINGS MADE OF READING PASSAGES

Passage	Readability Value	Percentage Responses* Across Rating Scale (4)	(3)	(2)	(1)	Difficulty Ratings** 1	2	3
1	50	58%	24%	10%	5%	1%	55%	41%
2	69	52%	31%	11%	4%	7%	79%	12%

* Very Important (4)-Important (3)-Slightly Important (2)-Not Important (1)
** 1 = too difficult, 2 = appropriate and 3 = too easy

III. POLICY RECOMMENDATIONS

After careful consideration of the survey results coupled with the understandings achieved from previous meetings, the Teacher Examination Development Panel adopted the following recommendations regarding the Connecticut Competency Examination for prospective teachers in mathematics, writing and reading and presents them for Board approval.

A. Mathematics

1. The competencies identified on the survey should be included on the mathematics examination for prospective teachers.

2. The ETS Pre-Professional Mathematics Test should be adopted for use with prospective teachers in Connecticut subject to satisfactory pilot testing with Connecticut college students and the conduct of additional content validity activities (see Attachment J: Sample Items).

3. The State Department of Education, with the assistance of the State Department of Higher Education, should establish a statewide standard of acceptable performance (i.e., a cutoff score) on the mathematics test using appropriate standard setting procedures and make recommendations regarding the state standard to the Panel and then to the Commissioner and the State Board of Education next winter.

4. The mathematics test should yield results useful in the development of a remedial program for prospective candidates who score below the state standard. Students who score below the state standard will be counseled to seek special instruction in mathematics.

5. The mathematics test should be implemented as part of the Connecticut Competency Examination for Prospective Teachers, following appropriate pilot testing, beginning in May 1985.

B. Writing

1. The competencies identified on the survey should be included on a competency examination in writing.

2. Writing should be assessed through the use of a writing sample composed in response to writing prompts developed by the State Department of Education and, if necessary, through inclusion of a multiple choice writing test as part of the writing assessment. This is subject to satisfactory pilot testing of the writing prompts and validation of the use of a multiple choice writing format by state experts.

3. The State Department of Education, with the assistance of the State Department of Higher Education, should establish a statewide standard of performance (i.e., a cutoff score) on the writing test using appropriate standard setting procedures and make recommendations regarding the state standard to the Panel and then to the Commissioner and the State Board of Education next winter.

4. The State Department of Education should use a holistic scoring method to determine those writing samples which meet or exceed a statewide standard. Those writing samples which score below the statewide standard should be scored analytically in order to provide more useful information

to students concerning their writing skills. Students who fall below the state standard should be counseled to receive special instruction in writing.

5. The writing test should be implemented as part of the Connecticut Competency Examination for Prospective Teachers, following approprate pilot testing, beginning in May 1985.

C. Reading

1. The range of reading difficulty levels identified on the survey should be included in a competency examination in reading.

2. The Degrees of Reading Power (DRP) test, published by the College Board of New York, should be adopted to assess the reading competence of prospective teachers.

3. The State Department of Education, with the assistance of the State Department of Higher Education, should establish a statewide standard of acceptable performance (i.e., a cutoff score) on the reading test using appropriate standard setting procedures and should make recommendations regarding the state standard to the Panel and then to the Commissioner and the State Board of Education next winter.

4. The reading test should yield results useful in the development of a remedial program for prospective candidates who score below the state standard. Students scoring below the state standard should be counseled to seek special instruction in reading.

5. The reading test should be implemented as part of the Connecticut Competency Examination for Prospective Teachers, following appropriate pilot testing, beginning in May 1985.

Prepared by:

Raymond L. Pecheone
Consultant
Bureau of Research, Planning
and Evaluation

Douglas A. Rindone
Coordinator
Assessment, Testing & Evaluation
Bureu of Research, Planning
and Evaluation

Roger E. Richards
Consultant
Bureau of Research, Planning
and Evaluation

Approved by:

Pascal D. Forgione, Jr.
Chief
Bureau of Research, Planning
and Evaluation

Robert E. Lamitie
Associate Commissioner
Division of Educational Administration

7 February 1984

ATTACHMENT A

ENSURING PROFESSIONAL COMPETENCE

ATTACHMENT A

ENSURING PROFESSIONAL COMPETENCE

On April 7, 1982, the Connecticut State Board of Education passed a resolution commending the work of the Professional Development Council and approving the recommendations contained in the report, "Recommendations for Ensuring Professional Competence." Three recommendations dealing with competency assessment were:

RECOMMENDATIONS

Pre-and Post-Teacher Preparation Program Testing Requirement

5. That the State Board of Education, in cooperation with the Board of Higher Education (BHE) and representatives of teachers (includes administrators and specialists) and teacher educators, by the Fall of 1983, select or develop a skills examination in mathematics, reading and writing and set uniform standards to be applied statewide. The examination would be field tested with candidates entering teacher preparation programs in the fall of 1984. The field test would be used to determine the need for the test and whether modifications were necessary to assure test validity and eliminate cultural bias. If the previous conditions were met, the test would be used as a screening mechanism for entrance into teacher preparation programs and would be fully implemented by the fall of 1985. When appropriate, remediation and re-examination for those receiving unsatisfactory scores would be undertaken. This requirement would be added to the procedures and standards for the approval of Connecticut teacher preparation programs.

6. That the State Board of Education, in cooperation with the Board of Higher Education and representatives of teachers (includes administrators and specialists) and teacher educators, by the Fall of 1983, select or develop examinations of professional knowledge and subject matter proficiency appropriate to all fields of certification and set uniform standards to be applied statewide. These examinations would be field tested in the Spring of 1984. The field test would be used to determine the need for the test and whether modifications were necessary to assure test validity and eliminate cultural bias. If the previous conditions were met, the test would be fully implemented by the Spring of 1985. When appropriate, remediation and re-examination for those receiving unsatisfactory scores would be undertaken. Successful completion of these examinations would be added to the procedures and standards for the approval of Connecticut teacher preparation programs. Amendment to the certification regulations would be proposed to incorporate this recommendation. The teacher preparation institutions would be responsible for administering these approved examinations.

Certification Requirement	9.	That the State Board of Education, for out-of-state applicants and those applying for certification who have not demonstrated such competencies by means of similar tests elsewhere, would require candidates to pass tests which were developed or selected for undergraduate students in the areas of basic skills, knowledge of subject matter, and professional knowledge in conformance with recommendations five and six. These examinations would become part of the initial certification process and the certification regulations would be amended to reflect this change.

ATTACHMENT B

CHARGE AND MEMBERSHIP OF THE
TEACHER EXAMINATION DEVELOPMENT PANEL

TEACHER EXAMINATION DEVELOPMENT PANEL

Membership List

Professor Edmund W. Gordon, Chairman
Yale University

Ms. Rosaida M. Rosario
National Puerto Rican Forum

Dr. Raymond J. Dry
Life Insurance Marketing
Research Association

The Honorable Michael Helfgott
Connecticut General Assembly

Dr. Edward F. Iwanicki
UCONN - School of Education

Dr. T. Joseph Sheehan
UCONN - Health Center

Mr. Al Sims
(formerly) The College Board

Dr. Bruce W. Davey, ex officio
State Personnel Bureau

Dr. Donald Winandy
State Department of
Higher Education

(Representing the Certification Advisory Council)

Dr. Ernest B. Fleishman, ex officio
Greenwich Public Schools

Dr. Richard Miller
Wesleyan University

Ms. Jacqueline Norcel
Coventry Public Schools

Ms. Jackie Willis
Stratford Public Schools

(Representing the Committee on Revision of
Procedures and Standards for Program Approval)

Dr. Charles Gervase
Central Connecticut State College

Mrs. Claire S. Gold, ex officio
Westport Public Schools

Mr. Raul Montanez
Hartford Public Schools

Mrs. Catherine Smith
Hamden Board of Education

STAFF

Dr. Pascal D. Forgione, Jr. Chief, Bureau of Research, Planning and Evaluation
Dr. Douglas A. Rindone, Coordinator, Assessment, Testing and Evaluation Unit/BRPE
Dr. Raymond L. Pecheone, Assessment, Testing and Evaluation Unit/BRPE
Dr. Joan Shoemaker, Assessment, Testing and Evaluation Unit/BRPE

CHARGE

Teacher Examination Development Panel

The Teacher Examination Development Panel is charged with the responsibility to address in a coordinated fashion the teacher examination requirements specified in the Connecticut State Board of Education recommendations (#5, 6 and 9; see attached) for "Ensuring Professional Competence." This panel will identify basic examination development considerations and will keep informed of and respond to issues raised by the Teacher Certification Advisory Council and the Review of Procedures and Standards Committee in order to ensure the quality and suitability of the resulting examination. The panel wll develop recommendations related to the selection and/or development of (a) skills examinations in mathematics, reading and writing, and (b) examinations of professional knowledge and subject matter proficiency appropriate to all fields of certification for graduates of Connecticut professional education programs and applicants for certification trained out-of-state. Activities will include:

- formulating the conceptual, legal and psychometric issues related to the development of Connecticut's teacher examinations;
- apprising the Teacher Certification Advisory Council and the Review of Procedures and Standards Committee of the teacner examination development issues for inclusion in the deliberations of the Council and Committee;
- incorporating the advice of the Council and Committee on each teacher examination development issue in the design of an implementation strategy;
- securing Council and Committee agreement on a jointly recommended strategy for proceeding with the teacher examination development activities, subject to the approval of the Commissioner of Education; and
- reviewing as needed, the results and implications of the teacher examination development activities and suggesting a final course of action to:
  - Teacher Certification Advisory Council
  - Procedures and Standards Committee
  - Commissioner of Education.

ATTACHMENT C

TIMETABLE OF ACTIVITIES

ATTACHMENT C

TIMETABLE OF ACTIVITIES

The development and implementation of all activities associated with the entrance examination will be completed by the Spring of 1985. These activities include obtaining reliability and validity information on the selected assessment instruments, writing a request for proposals (RFP), selecting a contractor to assist the CSDE in the administration of the testing program pilot testing, coordinating testing activities with institutions of higher education and implementing the first test administration. Following are key events and projected dates.

March 1984	Secure agreement with the test publishers
June 1984	Select contractor
October 1984	Pilot testing
March 1985	Recommend cutting-scores to Commissioner and State Board of Education
May 1985	First statewide administration of the Connecticut Competency Examination for Prospective Teachers

The activities associated with the development and implementation of the certification examinations are scheduled to be completed by Spring of 1987. Key events and projected dates are as follows:

October 1984	Panel recommends the framework of the certification exams
January 1985	State Board of Education acts on recommendations
June 1985	Select contractor
March 1986	Pilot testing of certification examinations
September 1986	Report to State Board of Education on pilot results and recommend cutting-scores
May 1987	First statewide administration of Connecticut certification examinations

ATTACHMENT D

VALIDITY CONCERNS REGARDING THE DEVELOPMENT OF A COMPETENCY EXAMINATION FOR PROSPECTIVE TEACHERS

ATTACHMENT D

VALIDITY CONCERNS REGARDING THE DEVELOPMENT OF A COMPETENCY EXAMINATION FOR PROSPECTIVE TEACHERS

Introduction

The primary concern in test development is the establishment of validity. Establishing validity for a test will vary according to several factors. The most important of these factors is the purpose for which the test scores will be used. Thus, the same test would need to be validated in different ways if it were to be used for different purposes.

The validation of Connecticut's Teacher Competency Examination should be consistent with the nature and purpose of the test. One of the major purposes of this test is to ensure that prospective teachers can demonstrate their proficiency in academic skill areas that knowledgeable individuals have determined to be relevant and important.

The test validation procedures which follow are designed to reflect this intent. After identifying the proposed procedures, a discussion of relevant issues is presented as background information.

Procedures for Establishing Validity For Connecticut's Teacher Competency Examination

The following activities will be undertaken, in the order presented, to establish the validity of the Connecticut Teacher Competency Entrance Examination. In addition, the current status of each activity is indicated.

1. A thorough review of existing competency based tests in the areas of reading, writing and mathematics should be conducted so that a list of competencies can be assembled. Status: A review of many of these tests has already been presented to the Teacher Examination Development Panel. Further reviews are currently being conducted.

2. A review of the competencies by advisory groups (e.g., teachers, curriculum specialists) who are knowledgeable in the content areas should be conducted. This review may result in additions and deletions to the list of competencies. Status: The first stage of this activity, identifying a set of skills in each area, will be completed by 5/31/83.

3. The relative importance of the identified competencies should be examined by administering a statewide survey. The survey will be administered to a broad and representative sample of the following groups: teachers, university educators, citizens, members of professional educational organizations and the business community. Status: The survey is presently being developed and a draft will be available by 5/31/83.

4. Establish a final list of competencies to be included on Connecticut's competency examination(s) by a thorough review of all the information from Steps 1-4. Status: This activity will be carried out in October 1983.

5. The final list of competencies should be matched to existing instruments in reading, writing and mathematics to determine whether to adopt or adapt an existing test or develop a customized test for Connecticut. Status: This activity will be carried out in November 1983.

6. Complete documentation of the steps taken for either test development or test adoption should be initiated. The steps would include, but not be limited to, the following activities: development of item specifications (if appropriate), assessing the quality of items, field testing of the items, setting standards (cut-scores), and assessing item bias. Status: This activity will be carried out during November-December 1983. Note, a more thorough discussion of these areas will be presented at future meetings.

7. Research studies should be conducted to examine the degree to which the entrance examination accurately identified students at risk. The Connecticut State Department should collect data related to how the entrance examinations correlate with basic performance measures such as grade point average, other standardized tests measuring similar skills or existing university based examinations in these content areas. Status: These studies will be conducted during 1985-86.

Discussion of Validity Issues

There are many "types" of validity and a variety of methods to assess each. While there is seldom a single correct way to approach the issue of test validity, there are certain definitions and approaches that are more suitable than others for a particular application. The determination of the best approach is usually guided by both philosophical and practical considerations.

Content validity and criterion-related validity are two commonly used terms that are applicable to teacher competency examinations. To facilitate this discussion, the following definitions of these terms are offered:

Content Validity - The degree to which the content of the test constitutes a representative sample of skills (behaviors) to be exhibited by prospective teachers in the areas (domains) of reading, writing, and mathematics. Evaluating content validity would include assessing how well the test items represent the stated objectives of the test; the degree to which these items are actually taught in schools; and the perceived importance of these skills for prospective teachers by a jury of experts.

Criterion-Related Validity - The degree to which a test predicts future performance. This "type" of validity could be referred to more specifically as "predictive" validity. Evaluation of criterion-related validity would include assessing the relationship of the competency test to a variety of performance indicators such as grade point average, teacher ratings, other standardized tests (i.e., GRE), and the evaluation of supervisors (at the university level and on the job).

These definitions provide two implications for the Connecticut Competency Examination. The first, content validity, implies that test validity should be based on information regarding an examinee's current (at time of testing) competence on specific skills in reading, writing, and mathematics and that these skills should be considered by "experts" to be important for effective performance in the teaching profession. The selected competencies should be skills which are judged so important that their absence would be considered a major limitation to the successful practice of the teaching profession.

Second, criterion-related validity is presented as providing a basis for predicting an examinee's performance in activities such as the successful completion of university work or practice teaching. Many discussions about competency testing in Connecticut have focused on the fact that the entrance examination was never intended to indicate readiness for a specific job but simply to distinguish those candidates who are sufficiently prepared in the basic skills from those who are not. Although student outcomes in college can be used to evaluate professional activities, they are not likely to provide a good measure of a student's competence. This is true since much of the variability in college performance will be due to characteristics that are not measured on the entrance examinations (i.e., persistence, motivation, effort).

Thus, criterion-related validity is a useful concept in the validation of the competency examination, although its utility is limited by the dependance on a suitable criterion (or criteria). The skills needed to effectively complete college and/or actually teach are not restricted to a few academic tasks but involve a wide range of activities, attitudes and competencies. Research in this area suggests that the development and validation of adequate criterion measures of professional performance present fundamental conceptual and measurement problems. To the extent that the criterion is questionable, any conclusions drawn from a criterion-related validity study must be questioned to <u>at least</u> the same degree.

An analogy to this line of reasoning is that government regulations traditionally are designed to protect the public from certain dangers rather than to guarantee specific outcomes. For example, in acquiring a drivers license, you must pass a written test on traffic law and a performance test on some basic driving skills. However, scores on these tests do not provide accurate predictions of future driving performance. Therefore, the test provides some critical information but is not by itself a sufficient indicator of a person's effectiveness in practice. Thus, criterion-related validity studies would be inappropriate as the <u>primary</u> basis for establishing validity for Connecticut's Driver Examinations. However, criterion-related validity studies could help to establish the degree to which the examination identifies prospective drivers who may be at risk behind the wheel of a car or teachers who may be at risk behind a desk.

ATTACHMENT E

ENSURING TEACHER MASTERY INCLUDING PROFICIENCY TESTING FOR TEACHER CERTIFICATION

A POSITION PAPER

Ensuring Teacher Mastery Including Proficiency Testing for Teacher Certification

A POSITION PAPER

Prepared by:

Raymond Pecheone
Douglas Rindone
Marjorie Bradley

ATTACHMENT E

Position Paper #6
Ensuring Teacher Mastery
Including Proficiency Testing for Teacher Certification

I. Purposes

1. To assure that academically able students enter the teaching profession.

2. To require that prospective teachers demonstrate competence in the essential skil (reading, writing and mathematics) and to further demonstrate competence in their academic discipline.

3. To require that beginning year teachers participate in a support and assessment program to ensure that they are capable of mastering teaching skills which are identified on the Connecticut Teacher Competencies list (see Teacher Certificatio Advisory Council: Connecticut Teacher Competencies list).

4. To provide a feedback mechanism for pre-service education which can help them improve their programs.

II. Background

> "The educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a People." (Nation at Risk, 1983)

The findings cited in the "Nation at Risk" report as well as those of other blue ribb commissions and panels have forced the public and educators to address issues of qual and competence within the teaching profession. The alarm has sounded in education an it is incumbent on the educational community to meet this challenge.

To respond to this growing concern about the quality of education, the Connecticut St Board of Education in April 1982 adopted 25 recommendations for ensuring professional competence. An important outgrowth of these recommendations is the charge to develop strategies for both assessing the competence of prospective teachers as well as to evaluate the quality of their teaching skills. In keeping with the national mood for accountability in the teaching profession, 27 states have mandates to develop statewi competency tests for teachers. In addition, a great many states are considering the development of tests to ensure professional competence. Finally there is little doub that the accountability movement for teachers is a direct result of the public's conc about the quality of our schools.

This paper investigates the assessment of teacher quality as it relates to basic skil competencies of prospective teachers, academic competencies of prospective teachers, the evaluation of beginning teachers during their first year of teaching. Each component of Connecticut's plan will be treated separately. Discussion will primaril address three questions: <u>What is tested</u>; <u>what type of test</u> is appropriate; and for <u>w benefit</u>.

III. Discussion

1. <u>Examination For Prospective Teachers, Basic Assumption:</u> if prospective teachers prior to admission to a teacher preparation program <u>cannot</u> do the elementary algorithms of arithmetic and have below average reading comprehension skills, the these candidates are poorly educated and are not adequately prepared for the comp task of teaching (Brophy, 1982).

What is tested? Testing will be limited to the areas of mathematics, reading and writing.

What type of test? The tests should be designed to measure specified objectives/domains that will be used to report a candidate's strengths and weaknesses. Criterion referenced tests would be most appropriate for this task.

For what benefit? Competency testing in these skill areas is well developed and ha grown out of the student competency assessment movement. It seems reasonable that competency tests can be used to screen out the academically unprepared candidates. However, competency testing of this type usually focuses on basic skills performance. Therefore, this type of testing can be used to identify minimal qualifications but should not be used as an indicator of how well these students would perform in a teacher preparation program.

2. Testing for teacher certification: basic assumption: Certification examinations ca be viewed as the assessment of specific competencies that are judged to be critica for effective performance. Critical in this context means that the absence of thi knowledge would be a serious limitation in the practice of the profession.

What is tested? Two types of tests will be employed: (1) tests in the certification endorsement areas (85 areas exist), and (2) a test of professional knowledge.

What type of test(s)? Tests that assess knowledge of specific content (endorsemen tests) generally lend themselves to paper and pencil measures. The development of criterion referenced tests would be most appropriate in this area. Paper and penc tests of professional knowledge, on the other hand, pose more serious problems. Research consistently reveals that measures of this type tend to represent particular educational ideologies and not a broad-based examination of professiona knowledge. In this area, performance assessment should be considered as a better technique for examining professional knowledge. Of course, a combination of both approaches might also be considered.

Moreover, it should be noted that to create tests in all endorsement areas would an enormous task requiring a great deal of time, effort, staff and money. Consideration should be given to identifying proxy measures in these areas (i.e., GRE tests), adopting existing tests (i.e., NTE) and/or constructing tests which might cover more than one endorsement area.

For what benefit? Certification examinations in the content areas can provide an effective safeguard against prospective teachers who are ill prepared, with one caveat, the test must reflect essential skills in the given content area. Howeve the use of certification tests to predict effective teaching would be an inappropriate use of these tests. Traditionally, relationships between these ty of tests and job performance are low.

3. Support and Assessment Program For Connecticut Beginning Teachers, Basic Assumption: "New teachers must deepen and extend the knowledge and skill they developed during their preparation programs and effectively apply their educatic school settings when they begin their teaching careers." "For this reason a beginning teacher support and assessment program is proposed as an essential par the certification continuum" (Bradley, et al, 1983).

What is tested? It is expected that all beginning teachers by the end of their first year will have satisfactorily mastered the 15 competencies cited in the Connecticut Teacher Competency list.

What type of test? Assessment in this area is based on the measurement of beginnir teacher performance in the classroom. Generally, measurement of performance is carried out through classroom observations, checklists, review of relevant documents, and/or some combination(s) of the above. It has been proposed that the assessment of beginning teachers be carried out using some form of team approach which includes representatives from the LEA, university staff, and state departmen personnel.

Whatever approach is taken, beginning teacher evaluation which is directly linked licensure will create many complex measurement problems. Some of the most critica problems address issues of (1) selecting the best assessment strategy, (2) developing the appropriate instrumentation, (3) training assessors to use the instruments, (4) establishing reliability (which is quite complex depending on the instrumentation used and the number of raters), and (5) establishing validity. Assuming these difficulties can be overcome, the assessment instrument(s) should focus primarily on evaluating the skills on the Connecticut competency list.

For what benefit? Assessment strategies for judging teacher performance on the jo in terms of critical competencies seems to be a realistic standard for judging teacher quality. Under the critical competencies approach, the assessment is viev as an attempt to maintain a generally accepted level of practice by requiring new professionals to have certain abilities that are related to good teaching. If th assessment can measure these abilities accurately, the assessment will provide an effective means for improving instructional practice in our schools.

4. Examination of Procedures and Standards, Basic Assumption: "Before graduates of teacher education programs are certified for service as teachers, supervisors or administrators in Connecticut, the program from which they are graduated must hav been approved by the State Board of Education." (White, et.al., 1983)

Assessment is an important component of program approval especially in the areas admissions (competency examination for prospective teachers) and certification (content area tests and professional knowledge assessment). The cumulative resu of the examinations will provide an important indicator of the quality of the pre-service education program. Therefore, deliberations about setting procedure and standards in higher education must take into account these assessment practi

IV. Considerations

1. Competency examinations for prospective teachers

PROS:
1. Assures the public that prospective teachers have adequate skills reading, writing and mathematics.
2. Because of the reluctance of universities to counsel out weak students, this test provides a mechanism for preventing students serious academic deficits from entering the teaching profession.

CONS:
1. Tests of this type are generally not good predictors of success teacher preparation programs.
2. Recruitment of minorities into the teaching profession may be restricted as a consequence of testing. Competency testing resu reveal that greater percentages of minorities score below state standards than other groups.

2. Testing For Teacher Certification

A. Knowledge of Specific Content

PROS:
1. The rationale for tests of this type appears logical and convincing. Students who major in an academic discipline should be able to demonstrate mastery in these areas.
2. Assures the public that high standards are being employed to evaluat prospective teachers.
3. Holds institutions of higher education accountable for student performance in these content areas.

CONS:
1. Eighty-five endorsement areas have been identified. Test developme in all these areas would expend considerable time, effort and money
2. Recruitment of minorities into the teaching profession may be restricted as a consequence of testing.

B. Professional Knowledge Tests

PROS:
1. Focuses assessment on the art and science of teaching.
2. Gives the appearance of being closely related to practice.

CONS:
1. Research on these types of examinations indicate that they are poor predictors of practice.
2. Tests of this type are difficult to develop and tend to represent particular educational ideologies.

3. Assessment For Reginning Teachers

PROS:
1. Demonstrates the State's resolve to assist beginning teachers in improving their instructional skills.
2. Establishes a link between universities, state departments and LEA concerning teacher competency and their induction into the profess

CONS:
1. The implementation of teacher performance assessment on a statewic basis represents a great expenditure of time, effort and money.
2. The development of valid assessment strategies and assessment instruments are very complex.

The following issues also need consideration:

a. Necessity for legislative action

The State Board of Education has the statutory authority to establish of the teacher assessment processes discussed herein. However, if legislation is needed, it would be possible to incorporate the assessm activities as part of the certification regulations.

b. Timelines

Implement entrance examinations	Fall, 1985
Implement certification examinations	Spring, 1987
Implement beginning year teacher program	As soon as certification regulations are formally approved

c. Impact on the Department

In order to carry out the proposed task, a significant amount of time, effort, and additional staff will be needed. A comprehensive program to ensure teache mastery will require attention to the following areas: test development, fiel testing, development of administrative procedures and processes, test scoring, technical assistance in the interpretation and use of assessment results, and on-going monitoring of all assessment activities. It is evident that these activities will require a major commitment of department resources for at lea the next five years.

d. Impact on school districts and other agencies

Of the assessment activities proposed, the beginning teacher assessment progr will require additional supervisory and supportive efforts on the part of LEAs. All other assessment functions proposed will primarily impact on those colleges and universities which have teacher training programs. The impact i uncertain but could possibly include: a reduction in student enrollment for teacher preparation programs, fewer graduates granted certification producing some additional shortages, and potential loss of program approval. More positive possibilities include higher calibre applicants and these activitie could act as a stimulus to upgrade and strengthen curriculum offerings in higher education.

e. Fiscal

Fiscal projections are difficult to estimate because it depends very much on what components of the program plan are adopted by the Department. Howeve , should be anticipated that the fiscal demand will be extensive.

V. Recommendations

1. The CSDE should develop a competency test, in the areas of reading, writing mathematics.

2. The CSDE should develop a professional knowledge test(s) as part of certification testing. However, assessment of professional knowledge does easily lend itself to paper and pencil assessment. Consideration should be given to either assessing this component as part of the student teaching process and/or explicitly narrowing the focus of the test.

3. The CSDE should develop or adopt certification tests which cover all endorsement areas. In addition, a professional knowledge examination shoul part of the examination process. A great deal of consideration in both are should be given to identifying alternative strategies for assessing the 85 endorsement areas and the method(s) for assessing professional knowledge.

4. The CSDE should develop an assessment instrument for use by administrators local school districts for evaluating beginning teachers. The primary foc this assessment should be the Connecticut Teacher Competencies. However, CSDE should not use the assessment strategy developed for this program as sole basis for the certification of beginning teachers.

5. All procedures and materials developed for the Connecticut Teacher Certification Test(s) should be under the control of the State.

6. The CSDE should use test results as well as other information to hold teacher preparation programs accountable for the performance of their graduates.

7. Prior to adopting any test or assessment strategy every effort should be made to ensure that the test is equitable and that it does not discriminate against minorities. Professional judgement, empirical data and judicial precedents should be used as the basis for these determinations.

ATTACHMENT E (Continued)

CRITICAL ISSUES-FISCAL IMPACT

Issue: Ensuring Teacher Mastery

1. State

Department Budget: Costs of developing three different assessments. Publication of guidelines. Possible addtional staff or the beginning teache assessment program

State Grants: Increased local costs would be reflected in GTB aid (after a year delay). There might be pressures to fund assessment costs on a more current basis.

Others:

2. Local

Staff: Possible increase in administration and supervision.

Other Expenses: Costs related to assessment of beginning teachers, such as workshops and training costs related to installing the new evaluation proces

ATTACHMENT F

SUBJECT MATTER EXPERTS

ATTACHMENT F

Mathematics

Lynn Anderson, Vernon
Bernard Capuano, Greenwich
Betsy Carter, West Haven
Nancy Cetorelli, Stratford
Tom Day, Farmington
Russell Dobelstein, Ellington
Edwin Dudley, North Haven
Ann Duffy, South Windsor
Roger Fiondella, Fairfield
James Fox, West Hartford
Sara Harrigan, Wethersfield
Don Hastings, Monroe
David Howell, New Haven
Philip Hyde, Manchester
Joseph Kane, Simsbury
Ernest Lehman, New Fairfield
Robert London, Old Saybrook
Ross Martin, Bethel
George McGarty, Wilton
Frances Pagliaro, New Haven
Leslie Paoletti, Choate-Rosemary Hall
George Parker, Mansfield
James Rath, Darien
Norman Ricker, New CAnaan
Robert Rosenbaum, Wesleyan University
Deborah Stampfer, Stamford
Daniel Trocolla, Danbury
Robert Washburn, Southern CT State University

ATTACHMENT F

Language Arts

Dorothy French
Reading Coordinator
Litchfield Public Schools

Marguerite Fuller
Reading/Language Arts Director
Bridgeport Public Schools

Rita Gerzanick
English Department Head
Bristol Central High School

Dr. Robert F. Kinder
English & Reading Consultant
Bureau of Curriculum & Staff Development

Frances Klein
Supervisor of Language Arts
East Hartford Public Schools

Mark Kristoff
Curriculum Director
New London Public Schools

Ray Lemley
Principal
Daniel Hand High School

Robert Lincoln
Principal
Parker Memorial School

Edward S. Moore
Language Arts & Reading Coordinator
Danbury Public Schools

Dr. William Paige
Professor Of Education
Univeristy of Connecticut

John Sutton
English Department Head
Middlesex Junior High School

ATTACHMENT G

SURVEY ON CONNECTICUT COMPETENCY EXAMINATION
FOR PROSPECTIVE TEACHERS

STATE OF CONNECTICUT

STATE BOARD OF EDUCATION

15 September 1983

Dear Friend:

I would like to ask you to take a few minutes to share your thoughts on a subject of great importance to the quality of public education in Connecticut. I am referring to the ongoing responsibility of ensuring the professional competence of teachers.

Your responses on the enclosed survey will assist the State Department of Education to design a statewide examination for all prospective teachers. The examination will assess proficiency in reading, writing, and mathematics. Prospective teachers will take the examination prior to admission into a teacher training program.

As a key step in developing the examination, we are asking a sample of people to rate the importance of the various competencies found in the enclosed survey. The ratings provided by the respondents will be carefully considered as we determine the content of the examination. Whatever your involvement with public schools - whether as a parent, teacher, school administrator, or taxpayer - your views are important in shaping a good examination.

I sincerely hope that you will participate in this survey. Thank you.

Sincerely,

Gerald N. Tirozzi
Commissioner of Education

GNT:drk
Enclosure

Box 2219 • Hartford, Connecticut 06115

An Equal Opportunity Employer

RESPONDENT INFORMATION

(For each item which describes you, enter its number on the blank line to the right.)

A. GENDER — A. _____ (Col. 10)

1. Male
2. Female

B. RACIAL/ETHNIC BACKGROUND — B. _____ (Col. 11)

1. Black
2. White
3. Hispanic
4. Other

C. POSITION (Choose only one) — C. _____ (Col. 12-13)

1. Classroom teacher - pre-school and K.
2. Classroom teacher - elementary
3. Classroom teacher - Middle/Jr. High
4. Classroom teacher - High School
5. Professor - Higher Education
6. Superintendent of Schools
7. Central office administrator
8. Principal/Vice Principal
9. Support staff (e.g., counselor, psychologist, speech therapist, remedial teacher, etc.)
10. Executive Director, Professional Organization
11. Dean of Education School; Chair of Education Department
12. President of Community College
13. Business/Industry
14. Other _____

D. OTHER RESPONSIBILITIES (if applicable) — D. _____ (Col. 14)

1. Member, local board of education
2. Member, State Board of Education
3. Officer/member of local P. T. A.
4. Member, General Assembly Education Committee

SURVEY ON CONNECTICUT COMPETENCY EXAMINATION FOR PROSPECTIVE TEACHERS

Instructions

A range of competencies in mathematics, writing and reading is listed in this survey form. Each competency is further defined by several examples.

For each competency, you are asked to rate how important it is to be included on the examination for prospective teachers. Please record your rating by using the following scale:

4 = Very Important
3 = Important
2 = Slightly Important
1 = Not Important
0 = Undecided.

The "Undecided" category should only be used if you have insufficient knowledge to answer the question.

Even though some of these competencies may be more relevant to teachers at certain grade levels or in certain subject areas, what we are seeking to identify are those competencies which should be demonstrated by any educated person who wishes to teach in Connecticut. If there are any competencies not represented here that you would like to see included on the test, please note them on the back of the last page.

Please complete the entire survey, including the questions on the previous page, which describe your role or position. Do not identify yourself by name; all responses will be treated anonymously.

Once you have completed the questionnaire, place it in the pre-addressed stamped envelope and mail it by October 11, 1983.

MATHEMATICS SKILLS AND UNDERSTANDINGS

for the

CONNECTICUT COMPETENCY EXAMINATION FOR PROSPECTIVE TEACHERS

Write the number of your rating on the blank line to the right of each competency/example.

How important is it for each of these competencies to be included on the examination for prospective teachers?

4 = Very Important
3 = Important
2 = Slightly Important
1 = Not Important
0 = Undecided

COMPETENCIES	EXAMPLE(S)	
COMPUTATIONAL SKILLS		
1. Adds and subtracts whole numbers and decimals	312 75 +185	$278.00 -18.75
2. Multiplies and divides whole numbers and decimals	0.4)2.56	$29.50 X .07
3. Adds, subtracts, multiplies and divides common fractions and mixed numbers	5 1/2 - 2 3/4 6 2/3 X 9	
4. Finds percents of whole numbers and what percent one whole number is of another	75% of 120 = ____ 28 is what % of 40? ____	
CONCEPTUAL SKILLS AND UNDERSTANDINGS		
5. Understands and converts among decimals, fractions and percents	4/5 = ____% Which of the following is not equivalent to .20: 1/5, 20%, 2/8, 4/20?	
6. Understands place value, rounding and scientific notation	How many hundreds are in ten thousand? What is the value of the 6 in 137.68? Round 28.47 to the nearest 10.	
7. Orders numeric quantities and understands the relative magnitude of numbers	Which fraction lies between 1/4 and 3/8? Which of the following is closest to 5: 4, 9, 5.2, 5 1/4, 4 1/2? Which decimal is least?	
8. Understands and converts among customary measurement units	18 yds. = ____ ft. 80 ozs. = ____ lbs.	
9. Understands and converts among metric measurement	20 kg. = ____ grams Which is the most appropriate unit for measuring the weight of a car?	
10. Determines perimeter, area and volume	Find the perimeter of a parcel of land with the following dimensions: 20', 40'6", 30', 40'6"	
11. Understands and uses basic geometric concepts and properties	Identifies perpendicular lines. Determines an unknown quantity using similar figures.	
12. Estimates the outcome of computation	About how much is $20.00 - $6.95? About how much is 5% of 850?	

How important is it for each of these competencies to be included on the examination for prospective teachers?

4 = Very Important
3 = Important
2 = Slightly Important
1 = Not Important
0 = Undecided

COMPETENCIES	EXAMPLE(S)	
PROBLEM SOLVING SKILLS		
13. Solves problems involving whole number and/or decimals	Bob buys one item for $6.50, another for $4.75 and a third for 99¢. How much change will he receive from a $20.00 bill?	(Col 27)
14. Solves problems involving fractions	Carol has completed 4 2/3 miles of a 6 mile race. How much further must she run?	(Col 28)
15. Solves problems involving percents	What is the 7½ sales tax on a $29.50 shirt?	(Col 29)
16. Solves problems involving integers	If it was -8°F at 3:00 PM and the temperature fell 11°F in the next 3 hours, what was the temperature at 6:00 PM?	(Col 30)
17. Solves problems involving ratios and proportions	If a student can type 8 pages in 40 minutes, how long will it take to type a 20 page paper?	(Col 31)
18. Solves problems involving measurement	If turkeys require 20 minutes per pound to cook, at what time should a 14 lb. turkey be placed in the oven if it is to be ready at 6:00 PM?	(Col 32)
19. Computes averages	Find the average of the following heights: 5'8", 5'11", 6'3".	(Col 33)
20. Uses and evaluates formulas	Given the formula y=kI, find the value of I if y=80 and k=¼.	(Col 34)
21. Reads and interprets tables, graphs and charts	No Example given	(Col 35)
22. Uses elementary probability to make predictions	What is the probability of drawing an ace from a complete deck of playing cards?	(Col 36)
23. Solves problems involving deductive reasoning	If Steve is twice as old as Mark and Mark is three years younger than Pam, how old is Pam if Steve is 18?	(Col 37)
24. Approximates a reasonable answer to a given problem	About how much will 3.12 lbs. of meat cost at $1.98 lb.?	(Col 38)
25. Recognizes situations where insufficient or extraneous information is provided	The passing score on a test is 60%. Dawn got 36 items correct. Does she pass? What information is needed?	(Col 39)
26. Recognizes multiple methods of solutions for problems	Each of the following except one is a valid way of determining the value of a 15% discount on a $480 TV: (15 x 480)/100, 15/100 x 480, .15 x 480, 480/.15.	(Col 40)

COMPETENCIES IN WRITING

for the

CONNECTICUT COMPETENCY EXAMINATION FOR PROSPECTIVE TEACHERS

Examinees will produce a sample of writing which will relate to the examinee's professional goals in education.

The writing sample will permit the examinee to demonstrate competence in each of the following.

Write the number of your rating on the blank line to the right of each competency/example.

How important is it for each of these competencies to be included on the examination for prospective teachers?

4 = Very Important
3 = Important
2 = Slightly Important
1 = Not Important
0 = Undecided

COMPETENCIES	EXAMPLE(S)	
1. Presents ideas in an organized fashion	Makes logical transitions, features important information	(Col 41)
2. Chooses effective words	Uses precise words, avoids jargon, cliches, vague words	(Col 42)
3. Includes sufficient detail	Clearly states why decision was made, gives supporting information	(Col 43)
4. Uses established format for type of writing assigned	Employs conventional format for a business letter, e.g., colon follows salutation	(Col 44)
5. Employs appropriate grammar and usage	Uses correct pronoun reference, avoids tense shift and run-on sentences	(Col 45)
6. Uses correct mechanics	Spells and capitalizes correctly	(Col 46)
7. Punctuates accurately	Correctly uses comma in a series, semicolon, quotation marks	(Col 47)
8. Produces legible handwriting	Writes in a manner so that a reader does not misinterpret the message	(Col 48)
9. Addresses all parts of the assignment	Responds to all assignment instructions	(Col 49)
10. Maintains a focus (states and stays on topic)	Does not dwell extensively on topics other than the one assigned, states purpose	(Col 50)

COMPETENCE IN READING
for the
CONNECTICUT COMPETENCY EXAMINATION FOR PROSPECTIVE TEACHERS

The overall goal of reading is to enable students to comprehend written language. For testing purposes, reading comprehension may be defined as the ability to use information in the test passages to answer correctly questions about the meaning of those passages. Such comprehension requires the ability to integrate a great many reading skills, such as phonetic analysis, identification of main ideas, and the ability to make inferences.

In order to assess the general level of the examinee's reading comprehension, the Connecticut State Department of Education proposes to use a test titled the Degrees of Reading Power which contains passages of varying difficulty. The test is designed to measure a student's ability to process and understand nonfiction English prose passages written at different levels of difficulty or readability. The test identifies the hardest prose that a student can read with comprehension.

Following are two reading passages having different levels of difficulty. First read the passages; then answer the questions which follow by choosing the number of your rating.

Passage Number 1

The 132 year old Bristol Brass Corporation closed Tuesday, apparently ending a year long struggle to remain alive despite a grim economy and a severe lack of operating capital.

Company officials said Tuesday they still are negotiating with three companies interested in buying the brass mill, which is a subsidiary of Bristol Industries Inc.

Eastern Rolling Mills of the Bronx, New York, long an aggressive suitor of the company, is involved in the talks, as is a group led by Arthur Brown, president of Bristol Brass. Officials declined to identify the third company.

But for now, the company's slightly fewer than 200 employees are out of jobs in a city where unemployment already was at 10.6 percent, second highest in the state.

The possibility that the historic brass mill would close had loomed since early last summer, when the company filed for protection from its creditors under Chapter 11 of the Federal Bankruptcy Act.

Even that last ditch effort apparently failed to dampen the hope of top company officials that the brass mill could soon be reorganized on more stable footing.

High interest rates, a lack of operating capital and the continuing slump in the beleaguered metals industry "finally caught up with us," a subdued William Freeborn, vice president of Bristol Brass, said Tuesday. Freeborn said there are no plans to liquidate the company and company officials intend to "fight like hell to keep that from happening."

Freeborn, Brown and an unidentified New York investor formed a group last spring to attempt to buy the mill, but have failed to raise the necessary capital. A court appointed committee of creditors had approved the group's endeavors.

How important is it that a reading passage of this difficulty level be included on the examination for prospective teachers? Choose your rating and write its corresponding number value in the blank on the right.

4 = Very Important
3 = Important
2 = Slightly Important
1 = Not Important
0 = Undecided

Passage 1 _____ (Col 51)

Do you consider the passage:

1 = too difficult for prospective teachers
2 = appropriately difficult for prospective teachers
3 = too easy for prospective teachers

Passage 1 _____ (Col 52)

Passage Number 2

Despite the greater publicity in recent years given to drug use among youth, drinking among college students has long been of concern to educators and of interest to researchers. For the most part, research findings indicate that college students today are drinking more alcohol more often than their counterparts did a generation ago, and that the frequency of intoxication has also increased. Perhaps the most often cited study of college drinking is that conducted by Straus and Bacon in 1949-51, based on a national sample of over 15,000 men and women attending 27 colleges and universities. Although this study is often used as a point of comparison for later works, it included a number of religious schools, making direct comparisons difficult. Hanson, who studied drinking among 3,696 students at 37 colleges and universities in the United States in 1970-71 found that, compared with the Straus and Bacon findings, a substantially higher percentage of freshmen were drinkers, but that among senior men little change in the incidence of drinking had occurred. However, the rate for women had increased to approximate that of the men. Blane and Hewitt have recently summarized the findings of 68 surveys of alcohol use among collegians. They divided the surveys into 3 time periods, those conducted prior to 1966, 1966-70 and 1971-75, and compared the mean percentages of prevalence of drinking between the first 2 time periods,

Continued on next page.

and some leveling off in the more recent time period. The prevalence of drinking (combining lifetime prevalence, period prevalence and prevalence of current use) among men was 75, 78 and 92 for 1971-75 (based on 31 surveys where comparisons could be made). Among women the percentages for the same time periods were 71, 90 and 84, respectively (based on 26 surveys). The relationship between drinking alcoholic beverages and sociocultural factors has been well documented. Within the adult population, studies have shown that more men are drinkers and that men drink more extensively than women, although a recent study has suggested that other variables are more significant than sex in explaining these differences.

How important is it that a reading passage of this difficulty level be included on the examination for prospective teachers? Choose your rating and write its corresponding number value in the blank on the right.

4 = Very Important
3 = Important
2 = Slightly Important
1 = Not Important
0 = Undecided

Passage 2 _____ (Col 53)

Do you consider the passage:

1 = too difficult for prospective teachers
2 = appropriately difficult for prospective teachers
3 = too easy for prospective teachers

Passage 2 _____ (Col 54)

ATTACHMENT H

TECHNICAL INFORMATION REGARDING THE SURVEY AND RESPONDENT POPULATIONS

ATTACHMENT H

TECHNICAL INFORMATION REGARDING THE SURVEY AND RESPONDENT POPULATIONS

I. Survey Population

The survey population was identified on the basis of targeting key groups within Connecticut that would have a major role or stake in the education of teachers and public school students. The target groups were generally considered to be practicing professionals in the educational field, such as, elementary and secondary teachers (i.e., Kindergarten-12th grade), educational administrators (i.e., superintendents, principals), representatives from higher education (i.e., professors of education, department chairpersons), and selected community group representatives (i.e., members of local boards of education, state board members, P. T. A. members.)

The identification of the survey population was constrained by budget considerations. The survey was limited to a mailing of 3,000 questionnaires. In order to best represent the perceptions of the educational community, 2,000 questionnaires were sent to people professionally engaged in education and 1,000 surveys were targeted to selected group representatives (i.e., P. T. A., legislators, board members etc.).

Three methods for drawing the survey sample were employed:

(1) Random Sampling - a 5 percent random sample of all elementary teachers, secondary teachers and support personnel in Connecticut was drawn using a computer based random program;

(2) Population Sampling - intact populations of selected groups were identified and surveyed such as: education professors, superintendents, P. T. A. presidents etc; and

(3) Nominations - selected groups were nominated to participate because of their interest and concern for education such as media representatives, business/industry managers (nominated by Connecticut Industry and Business Association (CIBA)) and minority representatives (NAACP, Black Educators, Commonwealth of Puerto Rico).

Table A identifies the groups in the sampling plan, the method of sampling and the total number of surveys sent to each group.

ATTACHMENT H (Continued)

Table A

LISTING OF SURVEY POPULATION

	Survey Method	Number Surveyed
A. Elementary and Secondary		
1. Kindergarten and Elementary teachers	Sample	1,100
2. Junior and Senior High School teachers	Sample	540
3. Support Staff	Sample	210
B. Educational Administrators		
4. Superintendents of Schools	All	165
5. Central Office Administrators	Sample	37
6. Principals/Vice Principals	Sample	178
7. Directors of Professional Organizations	All	70
C. Higher Education		
8. Professors of Education	All	142
9. Deans/Chairmen of Education	All	22
10. Presidents of Community Colleges	All	12
D. Selected Community Group Representatives		
11. Mangers of Business/Industry	Nominated	50
12. Minority group representatives	Nominated	53
13. Chairs, local boards of education	All	165
14. Presidents, local P.T.A.'s	All	219
15. General Assembly Education Committee	All	28
16. Members of State Board of Education	All	9
Totals: 16 groups targeted		3,000

II. The Respondent Population

A total of 1,432 questionnaires were returned. This is a 48% return rate. The demographic make-up of the respondents was as follows:

		N	Percent Responding
Gender:	Male	654	46%
	Female	778	54%
	Total	1,432	100%
Ethnicity:	White	1,342	94%
	Black	55	4%
	Hispanic	11	1%
	Other	9	1%
		1,432	100%

Table B and Table C, which follow, display the rate of response for the various groups sampled.

In both Tables B and C, two statistics are provided:

(1) Percent of Groups Responding - this is the percentage within each target group which responded to the survey (i.e., 24% of the number of kindergarden/elementary teachers sampled responded to the survey).

and

(2) Percent of Total Respondents - this is the percentage of people who responded to the survey from a given group compared to the total number of responses on the survey (i.e., 18% of all respondents to the survey were kindergarden/elementary teachers).

Table B

RESPONSE RATES FOR EDUCATIONAL GROUPS

Groups	Number and Percent of Group Responding		Percent of Total Respondents
	N	%	
Kindergarten and Elementary Teachers	261	24%	18%
Junior and Senior High School Teachers	396	73%	28%
Professors of Education	122	86%	8%
Superintendents of Schools	87	53%	6%
Central Office Admin.	29	78%	2%
Principals/Vice Principals	104	58%	7%
Support Staff	145	69%	10%
Directors, Prof. Orgin.	8	11%	.6%
Deans of Education	15	68%	1%
Pres., Community College	8	67%	.6%
Total	1,175		81.2%

Table C

RESPONSE RATES FOR SELECTED GROUPS*

Groups	Number and Percent of Group Responding		Percent of Total Respondents
	N*	%	
Business/Industry	48	96%	3%
Chairs, local boards*	73	NA	NA
State Board of Education	4	44%	2%
Presidents, P.T.A.'s*	292	NA	NA
General Assembly	18	64%	1%
Other	40	NA	3%

*Counts in these categories may be duplicate counts. Therefore the percent of people responding in these categories would be inflated.

ATTACHMENT I

SURVEY RESPONSES

MATHEMATICS SKILLS AND UNDERSTANDINGS

for the

CONNECTICUT COMPETENCY EXAMINATION FOR PROSPECTIVE TEACHERS

Write the number of your rating on the blank line to the right of each competency/example.

How important is it for each of these competencies to be included on the examination for prospective teachers?

4 = Very Important
3 = Important
2 = Slightly Important
1 = Not Important
0 = Undecided

COMPETENCIES	EXAMPLE(S)	(4)	(3)	(2)	(1)
COMPUTATIONAL SKILLS					
1. Adds and subtracts whole numbers and decimals	312 + 75 + 185 ; $278.00 - 18.75	88%	8%	2%	1%
2. Multiplies and divides whole numbers and decimals	0.4)2.56 ; $29.50 x .07	86%	10%	2%	1%
3. Adds, subtracts, multiplies and divides common fractions and mixed numbers	5 1/2 - 2 3/4 ; 6 2/3 x 9	77%	17%	4%	1%
4. Finds percents of whole numbers and what percent one whole number is of another	75% of 120 = ____ ; 28 is what % of 40? ____	76%	18%	4%	1%
CONCEPTUAL SKILLS AND UNDERSTANDINGS					
5. Understands and converts among decimals, fractions and percents	4/5 = ____% ; Which of the following is not equivalent to .20: 1/5, 20%, 2/8, 4/20?	67%	24%	7%	2%
6. Understands place value, rounding and scientific notation	How many hundreds are in ten thousand? What is the value of the 0 in 137.68? Round 28.47 to the nearest 10.	65%	23%	8%	2%
7. Orders numeric quantities and understands the relative magnitude of numbers	Which fraction lies between 1/4 and 3/8? Which of the following is closest to 5: 4, 9, 5.2, 5 1/4, 4 1/2? Which decimal is least?	58%	27%	11%	3%
8. Understands and converts among customary measurement units	18 yds. = ____ ft. ; 80 ozs. = ____ lbs.	64%	24%	8%	2%
9. Understands and converts among metric measurement	20 kg. = ____ grams which is the most appropriate unit for measuring the weight of a car?	30%	35%	25%	8%
10. Determines perimeter, area and volume	Find the perimeter of a parcel of land with the following dimensions: 20', 40'6", 30', 40'6"	46%	29%	18%	6%
11. Understands and uses basic geometric concepts and properties	Identifies perpendicular lines. Determines an unknown quantity using similar figures.	39%	34%	20%	5%
12. Estimates the outcome of computation	About how much is $20.00 - $6.95? About how much is 5% of 850?	64%	26%	8%	2%

How important is it for each of these competencies to be included on the examination for prospective teachers?

4 = Very Important
3 = Important
2 = Slightly Important
1 = Not Important
0 = Undecided

COMPETENCIES	EXAMPLE(S)	(4)	(3)	(2)	(1)
PROBLEM SOLVING SKILLS		80%	15%	3%	1%
13. Solves problems involving whole number and/or decimals	Bob buys one item for $6.50, another for $4.75 and a third for 99¢. How much change will he receive from a $20.00 bill?				
14. Solves problems involving fractions	Carol has completed 4 2/3 miles of a 6 mile race. How much further must she run?	66%	24%	7%	2%
15. Solves problems involving percents	What is the 7% sales tax on a $29.50 shirt?	72%	21%	4%	1%
16. Solves problems involving integers	If it was -8°F at 3:00 PM and the temperature fell 11°F in the next 3 hours, what was the temperature at 6:00 PM?	56%	26%	13%	4%
17. Solves problems involving ratios and proportions	If a student can type 8 pages in 40 minutes, how long will it take to type a 20 page paper?	56%	29%	11%	2%
18. Solves problems involving measurement	If turkeys require 20 minutes per pound to cook, at what time should a 14 lb. turkey be placed in the oven if it is to be ready at 6:00 PM?	64%	26%	7%	2%
19. Computes averages	Find the average of the following heights: 5'8", 5'11", 6'3".	71%	22%	5%	1%
20. Uses and evaluates formulas	Given the formula $y=kt$, find the value of t if $y=80$ and $k=\frac{1}{2}$.	42%	30%	19%	8%
21. Reads and interprets tables, graphs and charts	No Example given	67%	24%	6%	1%
22. Uses elementary probability to make predictions	What is the probability of drawing an ace from a complete deck of playing cards?	29%	29%	27%	12%
23. Solves problems involving deductive reasoning	If Steve is twice as old as Mark and Mark is three years younger than Pam, how old is Pam if Steve is 18?	43%	35%	16%	4%
24. Approximates a reasonable answer to a given problem	About how much will 3.12 lbs. of meat cost at $1.98 lb.?	62%	35%	16%	4%
25. Recognizes situations where insufficient or extraneous information is provided	The passing score on a test is 80%. Dawn got 36 items correct. Does she pass? What information is needed?	62%	27%	9%	1%
26. Recognizes multiple methods of solutions for problems	Each of the following except one is a valid way of determining the value of a 15% discount on a $480 TV: (15 x 480)/100, 15/100 x 480, .15 x 480, 480/.15.	51%	30%	14%	3%

COMPETENCIES IN WRITING

for the

CONNECTICUT COMPETENCY EXAMINATION FOR PROSPECTIVE TEACHERS

Examinees will produce a sample of writing which will relate to the examinee's professional goals in education.

The writing sample will permit the examinee to demonstrate competence in each of the following.

Write the number of your rating on the blank line to the right of each competency/example.

How important is it for each of these competencies to be included on the examination for prospective teachers?

4 = Very Important
3 = Important
2 = Slightly Important
1 = Not Important
0 = Undecided

COMPETENCIES	EXAMPLE(S)	(4)	(3)	(2)	(1)
1. Presents ideas in an organized fashion	Makes logical transitions, features important information	90%	9%	1%	1%
2. Chooses effective words	Uses precise words, avoids jargon, cliches, vague words	72%	24%	2%	1%
3. Includes sufficient detail	Clearly states why decision was made, gives supporting information	76%	21%	2%	1%
4. Uses established format for type of writing assignec	Employs conventional format for a business letter, e.g., colon follows salutation	61%	28%	9%	1%
5. Employs appropriate grammar and usage	Uses correct pronoun reference, avoids tense shift and run-on sentences	87%	11%	1%	1%
6. Uses correct mechanics	Spells and capitalizes correctly	85%	12%	1%	1%
7. Punctuates accurately	Correctly uses comma in a series, semicolon, quotation marks	77%	18%	3%	1%
8. Produces legible handwriting	Writes in a manner so that a reader does not misinterpret the message	64%	27%	7%	1%
9. Addresses all parts of the assignment	Responds to all assignment instructions	75%	22%	2%	1%
10. Maintains a focus (states and stays on topic)	Does not dwell extensively on topics other than the one assigned, states purpose	69	27	3%	1%

ATTACHMENT J
ETS MATHEMATICS TEST

Directions: Each of the questions or incomplete statements below is followed by five suggested answers or completions. Select the one that is best in each case.

1. $\frac{2}{3}$ is between the numbers given in each of the following pairs EXCEPT

   (A) 0 and 1

   (B) $\frac{1}{2}$ and $\frac{3}{4}$

   (C) 2 and 3

   (D) .6 and .7

   (E) .5 and .8

2. The maximum load for a certain truck is 2,000 pounds. How many trips must this truck make to transport 15 crates of machine parts if each crate of parts weighs 300 pounds?

   (A) $1\frac{1}{3}$

   (B) 2

   (C) $2\frac{1}{4}$

   (D) 2.5

   (E) 3

3. Tom had a party for some friends and relatives, and 40 people came. If twice as many relatives had come, the number of people at the party would have been

   (A) exactly 60

   (B) exactly 80

   (C) exactly 81

   (D) between 40 and 80, but not necessarily 60

   (E) more than 40, but no maximum can be set

4. If the sum of two numbers is 18, which CANNOT be true of the numbers?

(A) Their sum is 0.

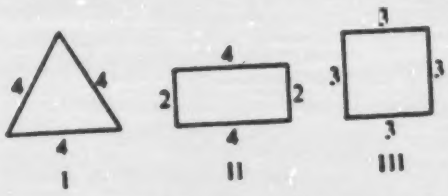
(B) Their product is 0.

(C) One number is twice the other number.

(D) One number is 8 times the other number.

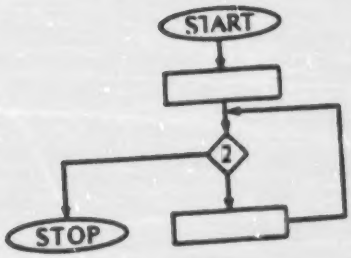
(E) One number is greater than 18.

5. The perimeters are equal for which of the following figures?



(A) I and II only (B) I and III only (C) II and III only

(D) I, II, and III (E) None of the three



6. Which is true for the flowchart above?

(A) Step 2 may be omitted.

(B) Step 2 is always omitted.

(C) Step 2 may be repeated.

(D) Step 2 is always repeated.

(E) Step 2 may cause the process to reverse.

SURVEY ON CONNECTICUT COMPETENCY EXAMINATION FOR PROSPECTIVE TEACHERS

Instructions

A range of competencies in mathematics, writing and reading is listed in this survey form. Each competency is further defined by several examples.

For each competency, you are asked to rate how important it is to be included on the examination for prospective teachers. Please record your rating by using the following scale:

4 = Very Important
3 = Important
2 = Slightly Important
1 = Not Important
0 = Undecided.

The "Undecided" category should only be used if you have insufficient knowledge to answer the question.

Even though some of these competencies may be more relevant to teachers at certain grade levels or in certain subject areas, what we are seeking to identify are those competencies which should be demonstrated by any educated person who wishes to teach in Connecticut. If there are any competencies not represented here that you would like to see included on the test, please note them on the back of the last page.

Please complete the entire survey, including the questions on the previous page, which describe your role or position. Do not identify yourself by name; all responses will be treated anonymously.

Once you have completed the questionnaire, place it in the pre-addressed stamped envelope and mail it by October 11, 1983.

MATHEMATICS SKILLS AND UNDERSTANDINGS

for the

CONNECTICUT COMPETENCY EXAMINATION FOR PROSPECTIVE TEACHERS

Write the number of your rating on the blank line to the right of each competency/example.

How important is it for each of these competencies to be included on the examination for prospective teachers?

4 = Very Important
3 = Important
2 = Slightly Important
1 = Not Important
0 = Undecided

COMPETENCIES	EXAMPLE(S)	
COMPUTATIONAL SKILLS		
1. Adds and subtracts whole numbers and decimals	312 75 +185	$278.00 -18.75 (Col. 15)
2. Multiplies and divides whole numbers and decimals	0.4)2.56	$29.50 X .07 (Col. 16)
3. Adds, subtracts, multiplies and divides common fractions and mixed numbers	5 1/2 - 2 3/4 6 2/3 X 9	(Col. 17)
4. Finds percents of whole numbers and what percent one whole number is of another	75% of 120 = ____ 28 is what % of 40? ____	(Col. 18)
CONCEPTUAL SKILLS AND UNDERSTANDINGS		
5. Understands and converts among decimals, fractions and percents	4/5 = ____% Which of the following is not equivalent to .20: 1/5, 20%, 2/8, 4/20?	(Col. 19)
6. Understands place value, rounding and scientific notation	How many hundreds are in ten thousand? What is the value of the 6 in 137.68? Round 28.47 to the nearest 10.	(Col. 20)
7. Orders numeric quantities and understands the relative magnitude of numbers	Which fraction lies between 1/4 and 3/8? Which of the following is closest to 5: 4, 9, 5.2, 5 1/4, 4 1/2? Which decimal is least?	(Col. 21)
8. Understands and converts among customary measurement units	18 yds. = ____ ft. 80 ozs. = ____ lbs.	(Col. 22)
9. Understands and converts among metric measurement	20 kg. = ____ grams Which is the most appropriate unit for measuring the weight of a car?	(Col. 23)
10. Determines perimeter, area and volume	Find the perimeter of a parcel of land with the following dimensions: 20', 40'6", 30', 40'6"	(Col. 24)
11. Understands and uses basic geometric concepts and properties	Identifies perpendicular lines. Determines an unknown quantity using similar figures.	(Col. 25)
12. Estimates the outcome of computation	About how much is $20.00 - $6.95? About how much is 5% of 850?	(Col. 26)

How important is it for each of these competencies to be included on the examination for prospective teachers?

4 = Very Important
3 = Important
2 = Slightly Important
1 = Not Important
0 = Undecided

COMPETENCIES	EXAMPLE(S)	
PROBLEM SOLVING SKILLS		
13. Solves problems involving whole number and/or decimals	Bob buys one item for $6.50, another for $4.75 and a third for 99¢. How much change will he receive from a $20.00 bill?	(Col 27)
14. Solves problems involving fractions	Carol has completed 4 2/3 miles of a 6 mile race. How much further must she run?	(Col 28)
15. Solves problems involving percents	What is the 7½ sales tax on a $29.50 shirt?	(Col 29)
16. Solves problems involving integers	If it was -8°F at 3:00 PM and the temperature fell 11°F in the next 3 hours, what was the temperature at 6:00 PM?	(Col 30)
17. Solves problems involving ratios and proportions	If a student can type 6 pages in 40 minutes, how long will it take to type a 20 page paper?	(Col 31)
18. Solves problems involving measurement	If turkeys require 20 minutes per pound to cook, at what time should a 14 lb. turkey be placed in the oven if it is to be ready at 6:00 PM?	(Col 32)
19. Computes averages	Find the average of the following heights: 5'8", 5'11", 6'3".	(Col 33)
20. Uses and evaluates formulas	Given the formula y=kI, find the value of I if y=80 and k=½.	(Col 34)
21. Reads and interprets tables, graphs and charts	No Example given	(Col 35)
22. Uses elementary probability to make predictions	What is the probability of drawing an ace from a complete deck of playing cards?	(Col 36)
23. Solves problems involving deductive reasoning	If Steve is twice as old as Mark and Mark is three years younger than Pam, how old is Pam if Steve is 18?	(Col 37)
24. Approximates a reasonable answer to a given problem	About how much will 3.12 lbs. of meat cost at $1.98 lb.?	(Col 38)
25. Recognizes situations where insufficient or extraneous information is provided	The passing score on a test is 60%. Dawn got 36 items correct. Does she pass? What information is needed?	(Col 39)
26. Recognizes multiple methods of solutions for problems	Each of the following except one is a valid way of determining the value of a 15% discount on a $480 TV: (15 x 480)/100, 15/100 x 480, .15 x 480, 480/.15.	(Col 40)

COMPETENCIES IN WRITING

for the

CONNECTICUT COMPETENCY EXAMINATION FOR PROSPECTIVE TEACHERS

Examinees will produce a sample of writing which will relate to the examinee's professional goals in education.

The writing sample will permit the examinee to demonstrate competence in each of the following.

Write the number of your rating on the blank line to the right of each competency/example.

How important is it for each of these competencies to be included on the examination for prospective teachers?

4 = Very Important
3 = Important
2 = Slightly Important
1 = Not Important
0 = Undecided

COMPETENCIES	EXAMPLE(S)	
1. Presents ideas in an organized fashion	Makes logical transitions, features important information	(Col 41)
2. Chooses effective words	Uses precise words, avoids jargon, cliches, vague words	(Col 42)
3. Includes sufficient detail	Clearly states why decision was made, gives supporting information	(Col 43)
4. Uses established format for type of writing assigned	Employs conventional format for a business letter, e.g., colon follows salutation	(Col 44)
5. Employs appropriate grammar and usage	Uses correct pronoun reference, avoids tense shift and run-on sentences	(Col 45)
6. Uses correct mechanics	Spells and capitalizes correctly	(Col 46)
7. Punctuates accurately	Correctly uses comma in a series, semicolon, quotation marks	(Col 47)
8. Produces legible handwriting	Writes in a manner so that a reader does not misinterpret the message	(Col 48)
9. Addresses all parts of the assignment	Responds to all assignment instructions	(Col 49)
10. Maintains a focus (states and stays on topic)	Does not dwell extensively on topics other than the one assigned, states purpose	(Col 50)

COMPETENCE IN READING
for the
CONNECTICUT COMPETENCY EXAMINATION FOR PROSPECTIVE TEACHERS

The overall goal of reading is to enable students to comprehend written language. For testing purposes, reading comprehension may be defined as the ability to use information in the test passages to answer correctly questions about the meaning of those passages. Such comprehension requires the ability to integrate a great many reading skills, such as phonetic analysis, identification of main ideas, and the ability to make inferences.

In order to assess the general level of the examinee's reading comprehension, the Connecticut State Department of Education proposes to use a test titled the Degrees of Reading Power which contains passages of varying difficulty. The test is designed to measure a student's ability to process and understand nonfiction English prose passages written at different levels of difficulty or readability. The test identifies the hardest prose that a student can read with comprehension.

Following are two reading passages having different levels of difficulty. First read the passages; then answer the questions which follow by choosing the number of your rating.

Passage Number 1

The 132 year old Bristol Brass Corporation closed Tuesday, apparently ending a year long struggle to remain alive despite a grim economy and a severe lack of operating capital.

Company officials said Tuesday they still are negotiating with three companies interested in buying the brass mill, which is a subsidiary of Bristol Industries Inc.

Eastern Rolling Mills of the Bronx, New York, long an aggressive suitor of the company, is involved in the talks, as is a group led by Arthur Brown, president of Bristol Brass. Officials declined to identify the third company.

But for now, the company's slightly fewer than 200 employees are out of jobs in a city where unemployment already was at 10.6 percent, second highest in the state.

The possibility that the historic brass mill would close had loomed since early last summer, when the company filed for protection from its creditors under Chapter 11 of the Federal Bankruptcy Act.

Even that last ditch effort apparently failed to dampen the hope of top company officials that the brass mill could soon be reorganized on more stable footing.

High interest rates, a lack of operating capital and the continuing slump in the beleaguered metals industry "finally caught up with us," a subdued William Freeborn, vice president of Bristol Brass, said Tuesday. Freeborn said there are no plans to liquidate the company and company officials intend to "fight like hell to keep that from happening."

Freeborn, Brown and an unidentified New York investor formed a group last spring to attempt to buy the mill, but have failed to raise the necessary capital. A court appointed committee of creditors had approved the group's endeavors.

How important is it that a reading passage of this difficulty level be included on the examination for prospective teachers? Choose your rating and write its corresponding number value in the blank on the right.

4 = Very Important
3 = Important
2 = Slightly Important
1 = Not Important
0 = Undecided

Passage 1 _____ (Col 51)

Do you consider the passage:

1 = too difficult for prospective teachers
2 = appropriately difficult for prospective teachers
3 = too easy for prospective teachers

Passage 1 _____ (Col 52)

Passage Number 2

Despite the greater publicity in recent years given to drug use among youth, drinking among college students has long been of concern to educators and of interest to researchers. For the most part, research findings indicate that college students today are drinking more alcohol more often than their counterparts did a generation ago, and that the frequency of intoxication has also increased. Perhaps the most often cited study of college drinking is that conducted by Straus and Bacon in 1949-51, based on a national sample of over 15,000 men and women attending 27 colleges and universities. Although this study is often used as a point of comparison for later works, it included a number of religious schools, making direct comparisons difficult. Hanson, who studied drinking among 3,696 students at 37 colleges and universities in the United States in 1970-71 found that, compared with the Straus and Bacon findings, a substantially higher percentage of freshmen were drinkers, but that among senior men little change in the incidence of drinking had occurred. However, the rate for women had increased to approximate that of the men. Blane and Hewitt have recently summarized the findings of 68 surveys of alcohol use among collegians. They divided the surveys into 3 time periods, those conducted prior to 1966, 1966-70 and 1971-75, and compared the mean percentages of prevalence of drinking between the first 2 time periods,

Continued on next page.

and some leveling off in the more recent time period. The prevalence of drinking (combining lifetime prevalence, period prevalence and prevalence of current use) among men was 75, 78 and 92 for 1971-75 (based on 31 surveys where comparisons could be made). Among women the percentages for the same time periods were 71, 90 and 84, respectively (based on 26 surveys). The relationship between drinking alcoholic beverages and sociocultural factors has been well documented. Within the adult population, studies have shown that more men are drinkers and that men drink more extensively than women, although a recent study has suggested that other variables are more significant than sex in explaining these differences.

How important is it that a reading passage of this difficulty level be included on the examination for prospective teachers? Choose your rating and write its corresponding number value in the blank on the right.

4 = Very Important
3 = Important
2 = Slightly Important
1 = Not Important
0 = Undecided

Passage 2 _____ (Col 53)

Do you consider the passage:

1 = too difficult for prospective teachers
2 = appropriately difficult for prospective teachers
3 = too easy for prospective teachers

Passage 2 _____ (Col 54)

ATTACHMENT H

TECHNICAL INFORMATION REGARDING THE SURVEY AND RESPONDENT POPULATIONS

ATTACHMENT H

TECHNICAL INFORMATION REGARDING THE SURVEY AND RESPONDENT POPULATIONS

I. Survey Population

The survey population was identified on the basis of targeting key groups within Connecticut that would have a major role or stake in the education of teachers and public school students. The target groups were generally considered to be practicing professionals in the educational field, such as, elementary and secondary teachers (i.e., Kindergarten-12th grade), educational administrators (i.e., superintendents, principals), representatives from higher education (i.e., professors of education, department chairpersons), and selected community group representatives (i.e., members of local boards of education, state board members, P. T. A. members.)

The identification of the survey population was constrained by budget considerations. The survey was limited to a mailing of 3,000 questionnaires. In order to best represent the perceptions of the educational community, 2,000 questionnaires were sent to people professionally engaged in education and 1,000 surveys were targeted to selected group representatives (i.e., P. T. A., legislators, board members etc.).

Three methods for drawing the survey sample were employed:

(1) Random Sampling - a 5 percent random sample of all elementary teachers, secondary teachers and support personnel in Connecticut was drawn using a computer based random program;

(2) Population Sampling - intact populations of selected groups were identified and surveyed such as: education professors, superintendents, P. T. A. presidents etc; and

(3) Nominations - selected groups were nominated to participate because of their interest and concern for education such as media representatives, business/industry managers (nominated by Connecticut Industry and Business Association (CIBA)) and minority representatives (NAACP, Black Educators, Commonwealth of Puerto Rico).

Table A identifies the groups in the sampling plan, the method of sampling and the total number of surveys sent to each group.

ATTACHMENT H (Continued)

Table A

LISTING OF SURVEY POPULATION

	Survey Method	Number Surveyed
A. Elementary and Secondary		
1. Kindergarten and Elementary teachers	Sample	1,100
2. Junior and Senior High School teachers	Sample	540
3. Support Staff	Sample	210
B. Educational Administrators		
4. Superintendents of Schools	All	165
5. Central Office Administrators	Sample	37
6. Principals/Vice Principals	Sample	178
7. Directors of Professional Organizations	All	70
C. Higher Education		
8. Professors of Education	All	142
9. Deans/Chairmen of Education	All	22
10. Presidents of Community Colleges	All	12
D. Selected Community Group Representatives		
11. Mangers of Business/Industry	Nominated	50
12. Minority group representatives	Nominated	53
13. Chairs, local boards of education	All	165
14. Presidents, local P.T.A.'s	All	219
15. General Assembly Education Committee	All	28
16. Members of State Board of Education	All	9
Totals: 16 groups targeted		3,000

II. The Respondent Population

A total of 1,432 questionnaires were returned. This is a 48% return rate. The demographic make-up of the respondents was as follows:

		N	Percent Responding
Gender:	Male	654	46%
	Female	778	54%
	Total	1,432	100%
Ethnicity:	White	1,342	94%
	Black	55	4%
	Hispanic	11	1%
	Other	9	1%
		1,432	100%

Table B and Table C, which follow, display the rate of response for the various groups sampled.

In both Tables B and C, two statistics are provided:

(1) Percent of Groups Responding - this is the percentage within each target group which responded to the survey (i.e., 24% of the number of kindergarden/elementary teachers sampled responded to the survey).

and

(2) Percent of Total Respondents - this is the percentage of people who responded to the survey from a given group compared to the total number of responses on the survey (i.e., 18% of all respondents to the survey were kindergarden/elementary teachers).

ATTACHMENT H (Continued)

Table B

RESPONSE RATES FOR EDUCATIONAL GROUPS

Groups	Number and Percent of Group Responding		Percent of Total Respondents
	N	%	
Kindergarten and Elementary Teachers	261	24%	18%
Junior and Senior High School Teachers	396	73%	28%
Professors of Education	122	86%	8%
Superintendents of Schools	87	53%	6%
Central Office Admin.	29	78%	2%
Principals/Vice Principals	104	58%	7%
Support Staff	145	69%	10%
Directors, Prof. Orgin.	8	11%	.6%
Deans of Education	15	68%	1%
Pres., Community College	8	67%	.6%
Total	1,175		81.2%

Table C

RESPONSE RATES FOR SELECTED GROUPS*

Groups	Number and Percent of Group Responding		Percent of Total Respondents
	N*	%	
Business/Industry	48	96%	3%
Chairs, local boards*	73	NA	NA
State Board of Education	4	44%	2%
Presidents, P.T.A.'s*	292	NA	NA
General Assembly	18	64%	1%
Other	40	NA	3%

*Counts in these categories may be duplicate counts. Therefore the percent of people responding in these categories would be inflated.

ATTACHMENT I

SURVEY RESPONSES

MATHEMATICS SKILLS AND UNDERSTANDINGS

for the

CONNECTICUT COMPETENCY EXAMINATION FOR PROSPECTIVE TEACHERS

Write the number of your rating on the blank line to the right of each competency/example.

How important is it for each of these competencies to be included on the examination for prospective teachers?

4 = Very Important
3 = Important
2 = Slightly Important
1 = Not Important
0 = Undecided

COMPETENCIES	EXAMPLE(S)	(4)	(3)	(2)	(1)
COMPUTATIONAL SKILLS					
1. Adds and subtracts whole numbers and decimals	312 75 +185 $278.00 -18.75	88%	8%	2%	1%
2. Multiplies and divides whole numbers and decimals	$0.4\overline{)2.56}$ $29.50 X .07	86%	10%	2%	1%
3. Adds, subtracts, multiplies and divides common fractions and mixed numbers	5 1/2 - 2 3/4 6 2/3 X 9	77%	17%	4%	1%
4. Finds percents of whole numbers and what percent one whole number is of another	75% of 120 = ____ 28 is what % of 40? ____	76%	18%	4%	1%
CONCEPTUAL SKILLS AND UNDERSTANDINGS					
5. Understands and converts among decimals, fractions and percents	4/5 = ____% Which of the following is not equivalent to .20: 1/5, 20%, 2/8, 4/20?	67%	24%	7%	2%
6. Understands place value, rounding and scientific notation	How many hundreds are in ten thousand? What is the value of the 6 in 137.68? Round 28.47 to the nearest 10.	65%	23%	8%	2%
7. Orders numeric quantities and understands the relative magnitude of numbers	Which fraction lies between 1/4 and 3/8? Which of the following is closest to 5: 4, 9, 5.2, 5 1/4, 4 1/2? Which decimal is least?	58%	27%	11%	3%
8. Understands and converts among customary measurement units	18 yds. = ____ ft. 80 ozs. = ____ lbs.	64%	24%	8%	2%
9. Understands and converts among metric measurement	20 kg. = ____ grams Which is the most appropriate unit for measuring the weight of a car?	30%	35%	25%	8%
10. Determines perimeter, area and volume	Find the perimeter of a parcel of land with the following dimensions: 20', 40'6", 30', 40'6"	46%	29%	18%	6%
11. Understands and uses basic geometric concepts and properties	Identifies perpendicular lines. Determines an unknown quantity using similar figures.	39%	34%	20%	5%
12. Estimates the outcome of computation	About how much is $20.00 - $6.95? About how much is 5% of $50?	64%	26%	8%	2%

How important is it for each of these competencies to be included on the examination for prospective teachers?

4 = Very Important
3 = Important
2 = Slightly Important
1 = Not Important
0 = Undecided

COMPETENCIES	EXAMPLE(S)	(4)	(3)	(2)	(1)
PROBLEM SOLVING SKILLS		80%	15%	3%	1%
13. Solves problems involving whole number and/or decimals	Bob buys one item for $6.50, another for $4.75 and a third for 99¢. How much change will he receive from a $20.00 bill?				
14. Solves problems involving fractions	Carol has completed 4 2/3 miles of a 6 mile race. How much further must she run?	66%	24%	7%	2%
15. Solves problems involving percents	What is the 7½% sales tax on a $29.50 shirt?	72%	21%	4%	1%
16. Solves problems involving integers	If it was -8°F at 3:00 PM and the temperature fell 11°F in the next 3 hours, what was the temperature at 6:00 PM?	56%	26%	13%	4%
17. Solves problems involving ratios and proportions	If a student can type 8 pages in 40 minutes, how long will it take to type a 20 page paper?	56%	29%	11%	2%
18. Solves problems involving measurement	If turkeys require 20 minutes per pound to cook, at what time should a 14 lb. turkey be placed in the oven if it is to be ready at 6:00 PM?	64%	26%	7%	2%
19. Computes averages	Find the average of the following heights: 5'8", 5'11", 6'3".	71%	22%	5%	1%
20. Uses and evaluates formulas	Given the formula y=kt, find the value of t if y=80 and k=½.	42%	30%	19%	8%
21. Reads and interprets tables, graphs and charts	No Example given	67%	24%	6%	1%
22. Uses elementary probability to make predictions	What is the probability of drawing an ace from a complete deck of playing cards?	29%	29%	27%	12%
23. Solves problems involving deductive reasoning	If Steve is twice as old as Mark and Mark is three years younger than Pam, how old is Pam if Steve is 18?	43%	35%	16%	4%
24. Approximates a reasonable answer to a given problem	About how much will 3.12 lbs. of meat cost at $1.98 lb.?	62%	35%	16%	4%
25. Recognizes situations where insufficient or extraneous information is provided	The passing score on a test is 60%. Dawn got 36 items correct. Does she pass? What information is needed?	62%	27%	9%	1%
26. Recognizes multiple methods of solutions for problems	Each of the following except one is a valid way of determining the value of a 15% discount on a $480 TV: (15 x 480)/100, 15/100 x 480, .15 x 480, 480/.15.	51%	30%	14%	3%

COMPETENCIES IN WRITING

for the

CONNECTICUT COMPETENCY EXAMINATION FOR PROSPECTIVE TEACHERS

Examinees will produce a sample of writing which will relate to the examinee's professional goals in education.

The writing sample will permit the examinee to demonstrate competence in each of the following.

Write the number of your rating on the blank line to the right of each competency/example.

How important is it for each of these competencies to be included on the examination for prospective teachers?

4 = Very Important
3 = Important
2 = Slightly Important
1 = Not Important
0 = Undecided

COMPETENCIES	EXAMPLE(S)	(4)	(3)	(2)	(1)
1. Presents ideas in an organized fashion	Makes logical transitions, features important information	90%	9%	1%	1%
2. Chooses effective words	Uses precise words, avoids jargon, cliches, vague words	72%	24%	2%	1%
3. Includes sufficient detail	Clearly states why decision was made, gives supporting information	76%	21%	2%	1%
4. Uses established format for type of writing assigned	Employs conventional format for a business letter, e.g., colon follows salutation	61%	28%	9%	1%
5. Employs appropriate grammar and usage	Uses correct pronoun reference, avoids tense shift and run-on sentences	87%	11%	1%	1%
6. Uses correct mechanics	Spells and capitalizes correctly	85%	12%	1%	1%
7. Punctuates accurately	Correctly uses comma in a series, semicolon, quotation marks	77%	18%	3%	1%
8. Produces legible handwriting	Writes in a manner so that a reader does not misinterpret the message	64%	27%	7%	1%
9. Addresses all parts of the assignment	Responds to all assignment instructions	75%	22%	2%	1%
10. Maintains a focus (states and stays on topic)	Does not dwell extensively on topics other than the one assigned, states purpose	69	27%	3%	1%

ATTACHMENT J
ETS MATHEMATICS TEST

Mathematics Test

The Mathematics test is intended to assess examinees' mathematical competencies, including knowledge acquired from having studied mathematics from elementary through secondary school. Consequently, there is no single course nor single book that specifically prepares examinees for the test. The questions are selected to test the kinds of mathematics most professionals may need. Questions are selected from such topics as comparing and ordering numbers; estimation; interpreting graphs, charts, and diagrams; use of ratio, proportion, and percent; reading scales; measurement; interpreting formulas and other expressions written in symbols; logical reasoning; and recognition of more than one way to solve a problem.

Computation is held to a minimum, and few technical words are used. Terms such as area, perimeter, ratio, integer, factor, and prime number are used, since it is assumed that these are commonly encountered in the mathematics all examinees have studied. Sample questions follow.

Directions: Each of the questions or incomplete statements below is followed by five suggested answers or completions. Select the one that is best in each case.

1. $\frac{2}{3}$ is between the numbers given in each of the following pairs EXCEPT

   (A) 0 and 1

   (B) $\frac{1}{2}$ and $\frac{3}{4}$

   (C) 2 and 3

   (D) .6 and .7

   (E) .5 and .8

2. The maximum load for a certain truck is 2,000 pounds. How many trips must this truck make to transport 15 crates of machine parts if each crate of parts weighs 300 pounds?

   (A) $1\frac{1}{3}$

   (B) 2

   (C) $2\frac{1}{4}$

   (D) 2.5

   (E) 3

3. Tom had a party for some friends and relatives, and 40 people came. If twice as many relatives had come, the number of people at the party would have been

   (A) exactly 60

   (B) exactly 80

   (C) exactly 81

   (D) between 40 and 80, but not necessarily 60

   (E) more than 40, but no maximum can be set

4. If the sum of two numbers is 18, which CANNOT be true of the numbers?

(A) Their sum is 0.

(B) Their product is 0.

(C) One number is twice the other number.

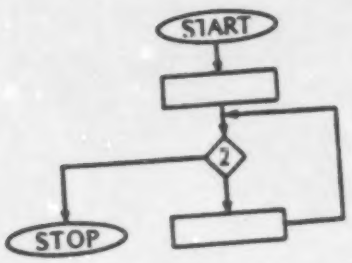
(D) One number is 8 times the other number.

(E) One number is greater than 18.

5. The perimeters are equal for which of the following figures?

(A) I and II only (B) I and III only (C) II and III only

(D) I, II, and III (E) None of the three



6. Which is true for the flowchart above?

(A) Step 2 may be omitted.

(B) Step 2 is always omitted.

(C) Step 2 may be repeated.

(D) Step 2 is always repeated.

(E) Step 2 may cause the process to reverse.

CONNECTICUT STATE BOARD OF EDUCATION
Hartford

TO BE PROPOSED:
6 March 1984

Resolved that the State Board of Education approves in principle and adopts the language for the policy recommendations of the Teacher Examination Development Panel as presented and empowers the Commissioner to take the necessary action.

Approved _____ (Date) Rejected _____ (Date)

Connecticut State Board of Education
Hartford

TO: State Board of Education

FROM: Gerald N. Tirozzi, Commissioner

SUBJECT: Approval of the Teacher Entrance Examination Policy Recommendations

I recommend that you approve the policy recommendations as developed by the Teacher Examination Development Panel. The primary purpose of this report is to present for Board consideration the policy recommendations developed by the Teacher Examination Development Panel and discussed at the February 1984 meeting. Another purpose is to address two test development issues that were raised at the February Board meeting: (1) the use of a combined score on the Scholastic Aptitude Test (SAT) as a waiver for the proposed Connecticut Competency Examination, and (2) the setting of standards on the competency examinations.

Policy Recommendations

The Teacher Examination Development Panel adopted the following recommendations regarding the Connecticut Competency Examination for Prospective Teachers in mathematics, writing and reading.

A. Mathematics

1. The competencies identified on the survey should be included on the mathematics examination for prospective teachers.

2. The Education Testing Service (ETS) Pre-Professional Mathematics Test should be adopted for use with prospective teachers in Connecticut subject to satisfactory pilot testing with Connecticut college students and the conduct of additional content validity activities.

3. The State Department of Education, with the assistance of the State Department of Higher Education, should establish a statewide standard of acceptable performance (i.e., a cutoff score) on the mathematics test using appropriate standard setting procedures and make recommendations regarding the state standard to the Panel which will forward its recommendations to the Commissioner of Education. The Commissioner will then present his recommendations to the State Board of Education by March 1985.

4. The mathematics test should yield results useful in the development of a remedial program for prospective candidates who score below the state standard. Students who score below the state standard will be counseled to seek special instruction in mathematics.

5. The mathematics test should be implemented as part of the Connecticut Competency Examination for Prospective Teachers, following appropriate pilot testing, beginning in May 1985.

B. Writing

1. The competencies identified on the survey should be included on a competency examination in writing.

2. Writing should be assessed through the use of a writing sample composed in response to writing prompts developed by the State Department of Education with the assistance of the State Department of Higher Education and, if necessary, through inclusion of a multiple choice writing test as part of the writing assessment. This is subject to satisfactory pilot testing of the writing prompts and validation of the use of a multiple choice writing format by state experts.

3. The State Department of Education, with the assistance of the State Department of Higher Education, should establish a statewide standard of performance (i.e., a cutoff score) on the writing test using appropriate standard setting procedures and make recommendations regarding the state standard to the Panel which will forward its recommendations to the Commissioner of Education. The Commissioner will then present his recommendations to the State Board of Education by March 1985.

4. The State Department of Education should use a holistic scoring method to determine those writing samples which meet or exceed a statewide standard. Those writing samples which score below the statewide standard should be scored analytically in order to provide more useful information to students concerning their writing skills. Students who fall below the state standard should be counseled to receive special instruction in writing.

5. The writing test should be implemented as part of the Connecticut Competency Examination for Prospective Teachers, following appropriate pilot testing, beginning in May 1985.

C. Reading

1. The range of reading difficulty levels identified on the survey should be included in a competency examination in reading.

2. The Degrees of Reading Power (DRP) test, published by the College Board of New York, should be adopted to assess the reading competence of prospective teachers.

3. The State Department of Education, with the assistance of the State Department of Higher Education, should establish a statewide standard of acceptable performance (i.e., a cutoff score) on the reading test using appropriate standard setting procedures and should make recommendations regarding the state standard to the Panel which will forward its recommendations to the Commissioner of Education. The Commissioner will then present his recommendations to the State Board of Education by March 1985.

4. The reading test should yield results useful in the development of a remedial program for prospective candidates who score below the state standard. Students scoring below the state standard should be counseled to seek special instruction in reading.

5. The reading test should be implemented as part of the Connecticut Competency Examination for Prospective Teachers, following appropriate pilot testing, beginning in May 1985.

The approval of these recommendations will effect the Department of Higher Education. The Department of Higher Education has been involved in the discussions that led to the establishment and approval of the recommendations of the Committee for the Revision of Procedures and Standards for the Approval of Connecticut Teacher Preparation Programs (see Attachment A) and is represented on the Teacher Examination Development Panel. It is expected that the Department of Higher Education will assist the Department of Education in the implementation of these recommendations.

Test Development Issues

SAT Waiver. In the guidelines for use of the competency examinations, a waiver was proposed which provided an alternative to taking the proposed Connecticut Competency Examination. The waiver states that: evidence of a combined score of 1000 on the SAT with no less than 400 on the verbal and mathematics subtests may be substituted for having to take the Connecticut Competency Examination. Members of the Board voiced a concern that the possible scores used on the SAT were set too low, especially the combined score of 1000 with the minimum score of 400, to constitute an adequate waiver standard. To examine this concern, SAT information was gathered on Connecticut's 1983 graduating class and is presented in Table 1.

Table 1: 1983 SAT Performance Averages

	Verbal	Mathematics	Total
Nation	425	468	893
Connecticut (Overall)	433	465	898
Connecticut (Teacher Education Candidates)	395	409	804

Inspection of the table reveals that if the 1000 SAT standard was applied:

- it exceeds the average performance of the nation by 107 points;
- it exceeds the average performance of all Connecticut students by 102 points;
- it exceeds the performance of Connecticut students who express a desire to enter teaching by 196 points; and

These findings indicate that the combined score of 1000 is a rigorous standard of performance compared to SAT test takers in general. In addition, the use of a 400 score on the SAT as the lower bound for the waiver was also examined. Table 2 presents the estimated distribution of students with combined scores of 900 or more and the percent who have scored below 400 on one of the SAT subtests.

Table 2: Estimated Connecticut SAT Distribution for 1982

SAT Total Score	Cumulative Percent	Cumulative Percent Who Scored less than 400 on One Test
1200+	9%	0%
1150+	13%	0%
1100+	20%	0%
1050+	27%	.1%
1000+	33%	1.4%
950+	40%	3.0%
900+	49%	7.4%

The table shows that:

- No student scoring 1100 or more scored below 400 on any subtest: and
- Only 1.4% of the students scoring 1000 or more on any subtest scored below 400 on any subtest.

These data suggest that if the 400 SAT score is used as a lower bound, a very small percentage of students (1.4%) would actually score at or below this level. Overall, the SAT waiver criteria compared with the actual performance of Connecticut students is a high standard of performance for students entering the teacher profession.

Additionally, two points need to be made about establishing this waiver. First, the waiver was viewed by staff as a positive incentive for students who have achieved a high level of performance on the SAT (1000+). Second, it should be noted that the Board has already approved this standard as one of six criteria to be used in admitting a prospective student to a Connecticut Teacher Education Program (see Attachment A: January 1984 Committee Report). In addition, a SAT score of 1000 or greater and a top 20% class ranking is one of the bases for determining eligibility for the proposed Connecticut Scholarship Loan Program to attract academically talented students into the teaching profession.

Standard Setting. The critical determinations in setting standards for a test are equity and validity concerns. For example, the standards on the teacher competency examinations should be appropriately set at a point where students who lack basic skills in reading, writing, and mathematics will be prohibited from entering the teaching profession. Conversely, the standard should not be set arbitrarily resulting in students being denied a career opportunity when, in fact, they have the potential to be successful in a teacher education program of study. Setting standards requires a fine balance between establishing an equitable opportunity for the prospective candidate and the needs of the teaching profession. In making this determination many methods are used to achieve a valid and defensible standard. The methods include judgement by content experts in the respective areas (e.g., teachers and university professors of English and mathematics), judgements by knowledgeable people concerned about teacher preparation (e.g., superintendents and schools of education faculty) and empirical methods established by the Teacher Examination Development Panel that use pilot test information as a statistical means for informing decision-makers about setting standards. Therefore, standards are derived through a systematic set of research activities which

are used to determine the test standards. The research techniques will be defined by the Teacher Examination Development Panel. By March 1985 the State Board will receive the results of the Department conducted research studies and the Commissioner's recommendations for establishing the competency standards in mathematics, reading and writing.

Approval of the policy recommendations does not preclude the Board from further consideration and action regarding test guidelines, such as the provision of a waiver or issues related to establishing standards in the future.

Prepared by:

Raymond L. Pecheone
Education Consultant
Bureau of Research, Planning
and Evaluation

Douglas A. Rindone
Education Consultant and Coordinator
Bureau of Research, Planning
and Evaluation

Reviewed by:

Pascal D. Forgione, Dr.
Chief
Bureau of Research, Planning
and Evaluation

Betty Sternberg
Chief
Bureau of Curriculum and
Staff Development

Approved by:

Robert E. Lamitie
Associate Commissioner
Division of Educational
Administration

Robert I. Margolin
Associate Commissioner
Division of Elementary and
Secondary Education

5 March 1984
3339H

ATTACHMENT A

Procedures and Standards Committee Recommendations

Attachment A

Procedures and Standards Committee Recommendations

On 4 January, 1984, the Connecticut State Board of Education passed a resolution approving the recommendations contained in the report, "Standards and Procedures for the Approval of Connecticut Teacher Preparation Programs." Of the six standards listed in the report, standard three has the most significant implications for the development of a competency examination(s) in reading, writing and mathematics.

3. Students

Essential characteristics are:

3.1P	Appropriate academic and non-academic standards for admission to the teacher preparation programs are stated and enforced. These standards shall include, but not be limited to: 1) passing of the state mandated skills examination in mathematics, reading and writing, or presentation of a combined score of 1000 on the SAT with at least a score of 400 on both the verbal and the mathematics sections respectively or passing a similar test of a state with which Connecticut has certification reciprocity agreements; 2) at least a B minus average forall undergraduate courses; 3) an educational background including arts and humanities,mathematics-science-technology, social and behavioral sciences, health and physical education; 4) the presentation of an essay demonstrating a command of the English language and setting out the reasons for wanting to enroll in the program and emphasizing experience relevant to teaching; 5) at least two letters of recommendation from persons able to testify to the candidate's suitability as a prospective teacher; and 6) an interview by a team to assess the candidate's personal attributes which will affect his/her performance in teaching. Any one item, with the exception of number 1) listed above, may be waived if justified by unusual circumstances, provided that a statement of justification is added to the candidate's records.	12/84

		Compliance Date
3.2P	Adequate provision for advising and counseling students is available, including: results of the skills examination and provision, when appropriate, of remediation; career awareness; assistance in placement for student teaching; supervision during the student teaching experience; appropriate guidance concerning course load; and job placement.	1/84
3.3P	Criteria for continuation in the teacher education program are clearly defined, and shall include academic and non-academic factors which may affect qualifications for teaching.	1/84
3.4P	Student records which are clear, complete, and legible, and transcripts including descriptive course titles, are produced.	1/84